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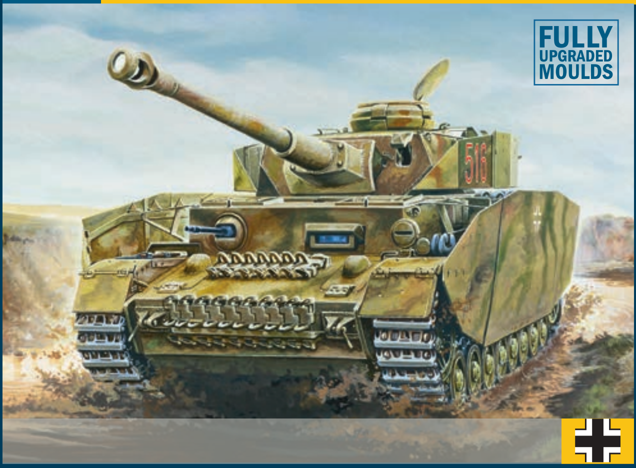
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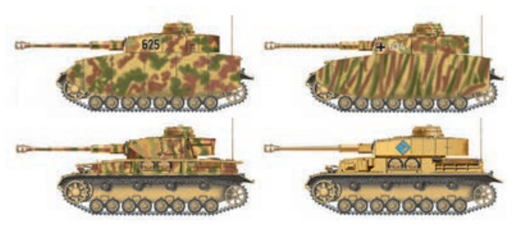

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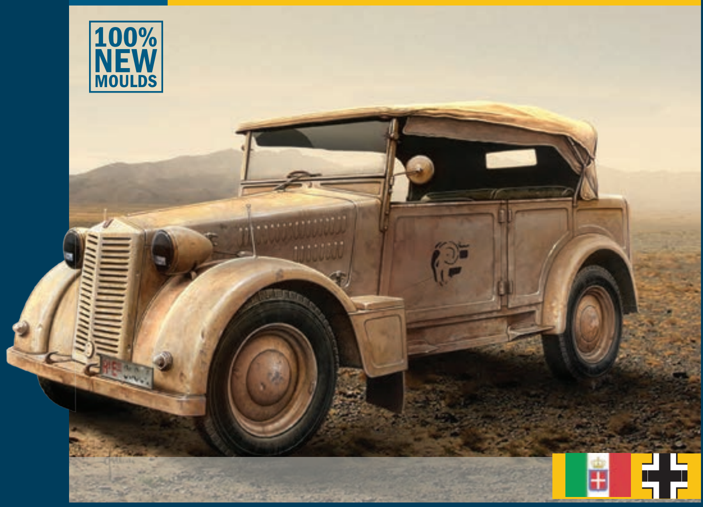
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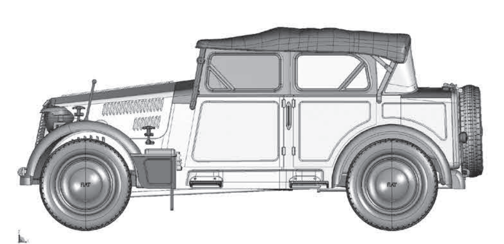

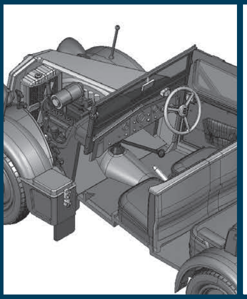

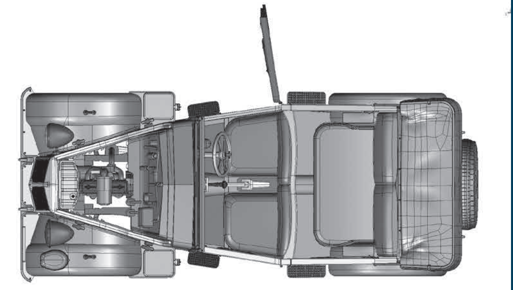

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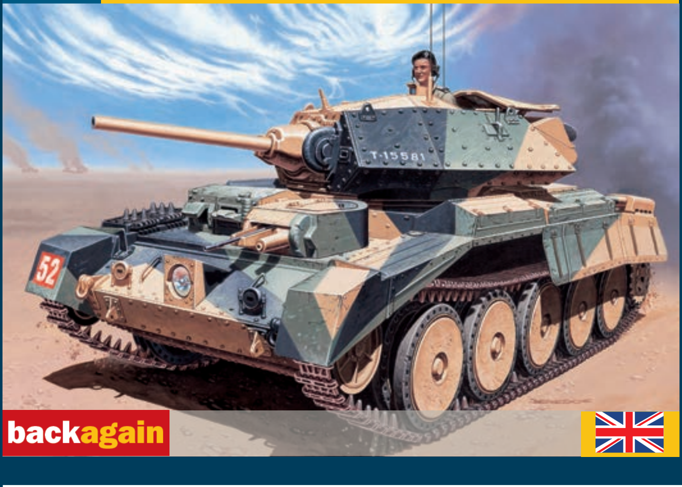

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ROYAL NAVY LYNX WILL DROP INTO SCALE MODELWORLD

The Royal Navy will be attending Scale ModelWorld this year with a fully operational Lynx Helicopter over the show weekend of 10-11th November. The Lynx will be flying into Telford International Centre and landing in the car park on Friday, 9th November before being wheeled inside where it willl be on display all weekend, with the crew on hand to answer questions.

For those of you with the new Airfix kit, you are unlikely to have a better chance to check it against the real thing!

The attendance of the Lynx has been made possible by Airfix, who negotiated with the Royal Navy and are sponsoring the helicopter's attendance at the show. IPMS UK would like to thank Airfix and Marketing Manager Darrell Burge in particular for their continuing support for the world's premier model show.

Airfix has invited all IPMS members who have a completed model of the Lynx to bring it to the show and exhibit it on the special Airfix Lynx display in front of the actual aircraft.

Scale ModelWorld, the annual IPMS (UK) Model Show, is the largest plastic modelling exhibition in the World and takes place on 10-11 November 2012 at The International Centre, Telford, Shropshire, TF3 4JH.

Full details may be found on our dedicated Scale ModelWorld website: www.smwshow.com

Exhibitor List www.smwshow.com/exhibitors.php

Photos - Chris Ayre/IPMS (UK)

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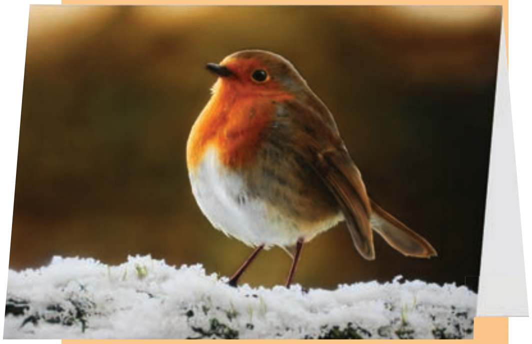


2012 Alexander Medwell of The Airbrush Company (airbrush painting), based on reference image with kind permission, Nick Cantle (original reference photograph)

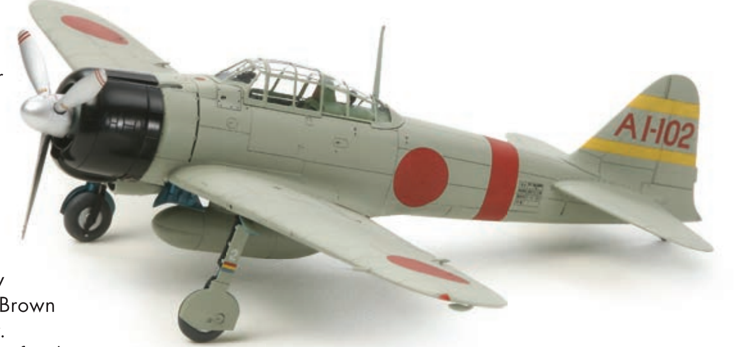
Okay, yeah - we know it seems way too early for Christmas promotions! But this year the Airbrush Company want to start selling their cards earlier so they can raise more money for charity and offer these before you buy yours elsewhere!

The new 2012 airbrushed design is 'Robin in Snow' reproduced as a high-quality lithographically printed A6 card with glossy finish.

In partnership together, The Airbrush Company and FaceMediaGroup donate 100% of profits of these airbrush design Christmas cards to Cancer Research UK. Cancer Research UK have saved millions of lives by discovering new ways to prevent, diagnose and treat cancer.

For more information on Alex's Christmas card, visit the Airbrush Company's Charity Christmas card page: https://airbrushes.com/charity_cards.php

TAMIYA 1:72 A6M2b ZERO BUILT-UP PHOTOS

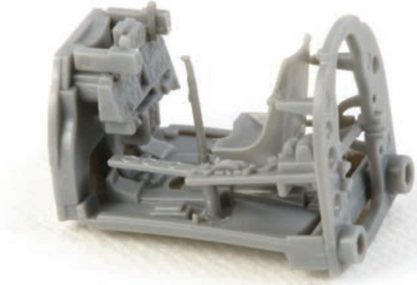


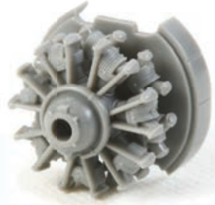
Tamiya has sent some photos of their brand-new 1:72 scale A6M2b Zero kit built up. We have a detailed in-box review of this kit on page 19 of Military Illustrated Modeller magazine.

Tamiya also has a new finishing product – Dark Brown Panel Line Access Colour.

Thanks to Tamiya Japan for the images www.tamiya.com

Tamiya kits are distributed in the UK by The Hobby Company Limited www.hobbyco.net





PANEL LINE
ACCENT COLOR
DARK BROWN
スミ入れ塗料（ブラウン）

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F-102A
CASE X

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Thanks to Meng Model for the image and information www.meng-model.com

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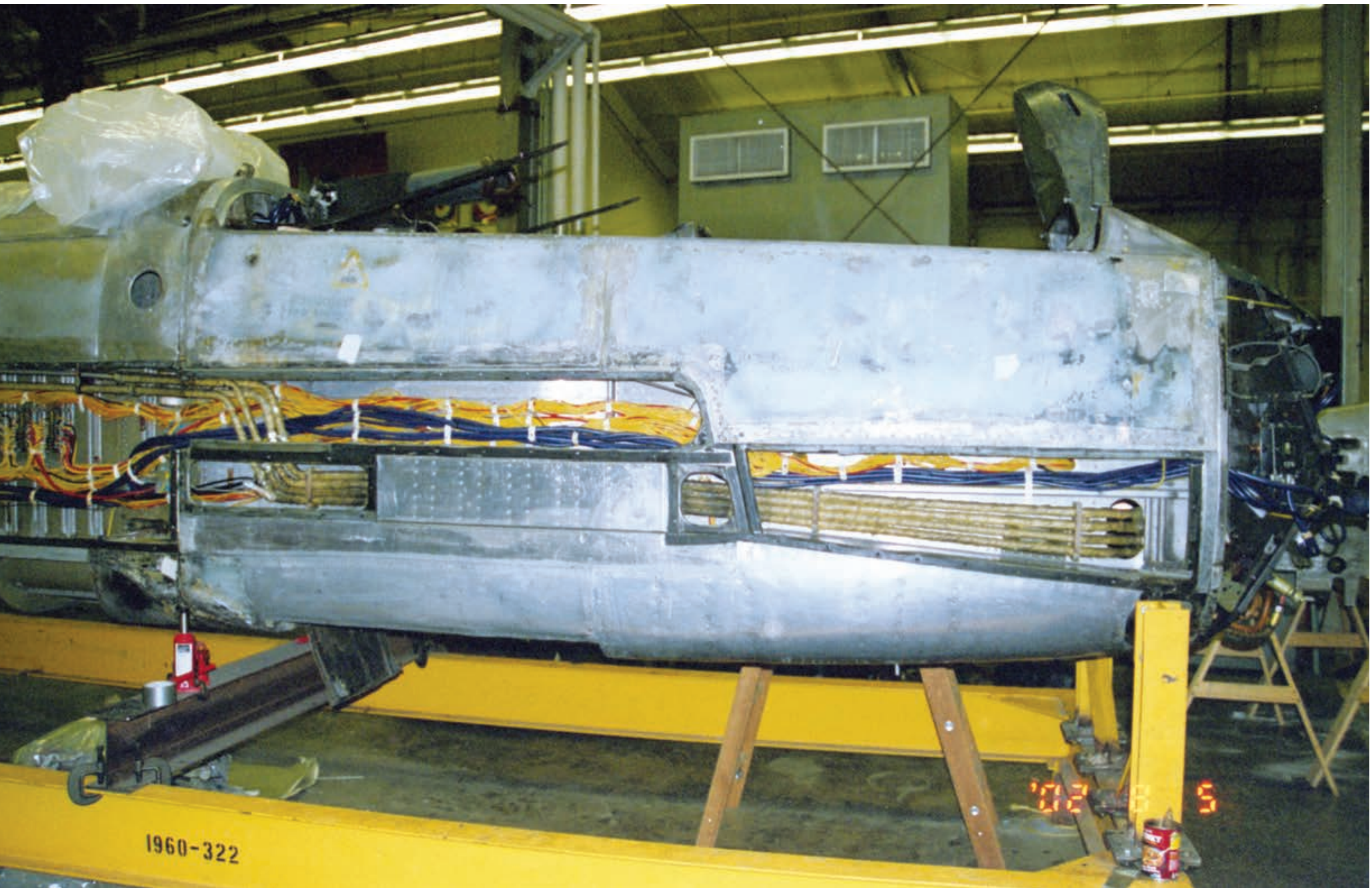


THE GREEN OWL

The Editor relates his close encounter with the National Air and Space Museum's Heinkel He 219 A in 2002, prior to its restoration.

ABOVE, The forward fuselage of the National Air and Space Museum's Heinkel He 219, still clad in its post-war Allied paintwork.

The 2002 IPMS USA Nationals were held at Virginia Beach in early August. I had arrived earlier in New York, caught a train to Washington and then hired a car to drive down to the Beach.

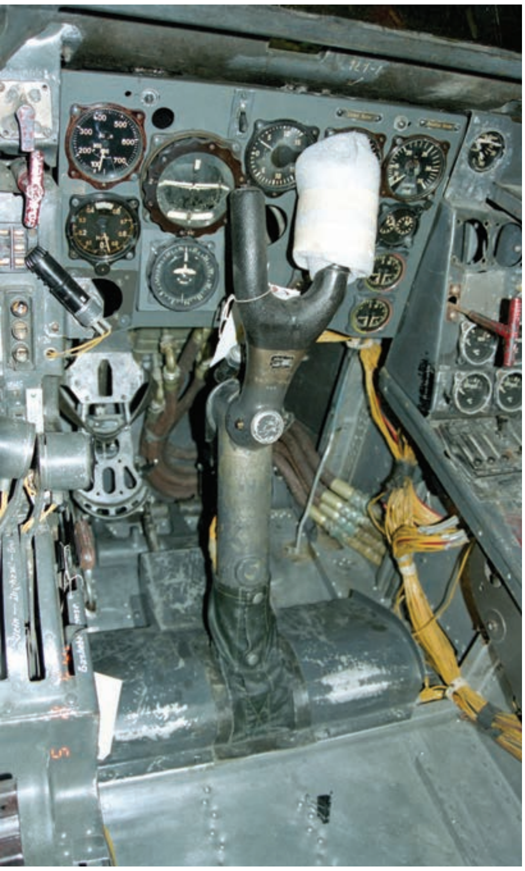
After the show, Jerry Crandall very kindly arranged for me to accompany him and his wife Judy to the National Air and Space Museum's restoration facility at Silver Hill, Maryland.

I took a leisurely route north after the show, avoiding the Freeways where possible and taking back roads that included a visit to Yorktown, Virginia, the site of the famous 1781 siege of British forces under General Cornwallis. This final victory for American and French forces secured the independence of the United States. I continued along the narrow roads, passing barricades and centuries-old houses until I came to historic Fredericksberg, a Georgian city that predates white settlement of Australia yet the layout, street names and building styles looked strangely familiar to this Sydneysider.

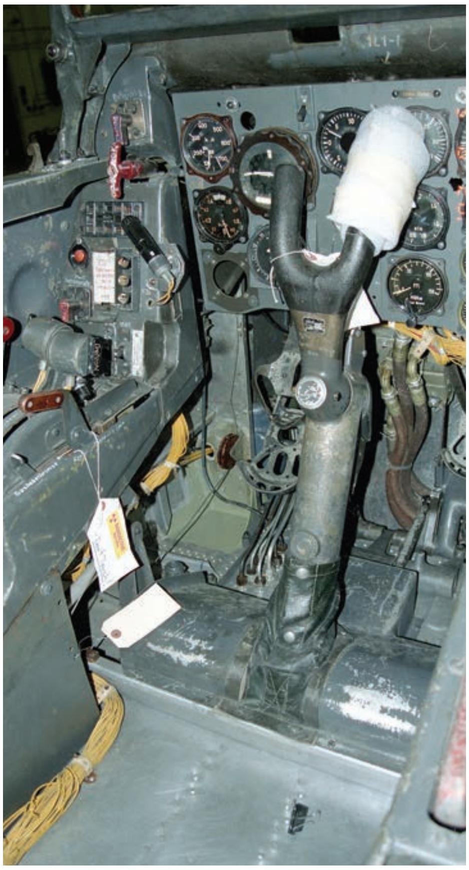
Sadly though, history gave way once again to a clutter of gas stations, sporting good shops and mini-malls, signalling civilisation as we know it.

Next morning I met Judy and Jerry at the gate of an unprepossessing warehouse complex in a semi-suburban area of Maryland. Once signed in, we were ushered toward one of a dozen or so WWII-era buildings. I had no idea what was in store for us.

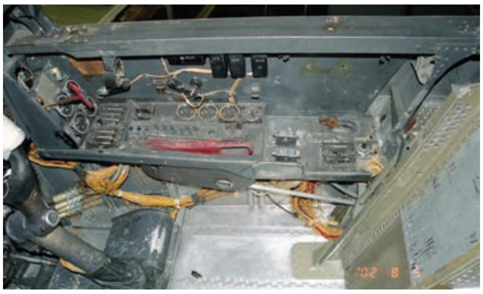
Upon opening the door, we were greeted by a hive of activity in a modern, brightly lit workshop. At the centre of all this commotion was the fuselage of the NASM's Heinkel He 219 A, partially disassembled and offering access to the



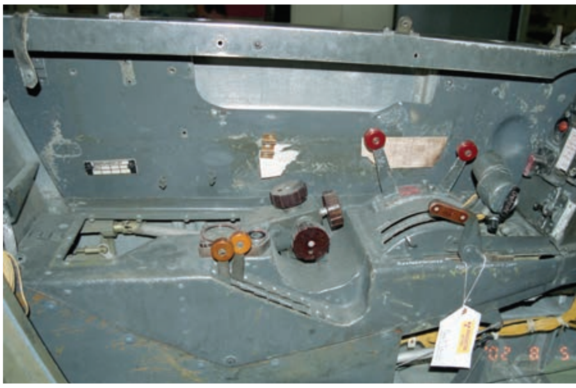
The instrument panel and control column. Note that there are at least three distinct shades of RLM 66 visible in this photo, ranging from very dark (the leg rests either side of the control column), to an almost medium grey in places.



This view from the other side reveals a large patch of RLM 02 primer in the port side foot well. Also note the bundles of yellow-clad electrical cable and the heavily scuffed and scratched appearance of the control column.



This view of the starboard pilot's console and the floor offers some fascinating insights into late-war Luftwaffe cockpits. Note that the base for the ejection seat is bare metal. The rails and the lower vertical plate appear to be a colour similar to RLM 02, but may be an anodised finish. The upper vertical plate is once again bare metal. The yellow bezels on three of the console dials are interesting too. The electrical cabling exposed under the console would normally be hidden by sheet metal covers.



The port side console is fitted with throttle and mixture handles, as well as trim and other pilot controls.

cockpit, the nose area, the inside of the fuselage skinning and even the fuselage interior.

This was a fantastic opportunity to take photographs of a rare and as-yet unrestored Luftwaffe war prize.

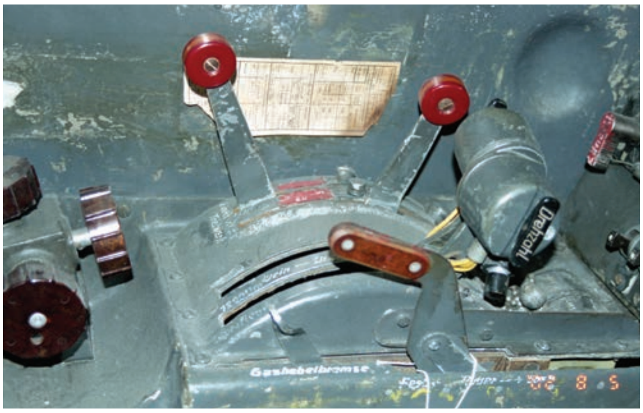
Inside the cockpit, I was interested to note the jumble of colours and the number of different shades of RLM 66 Black Grey. There were at least three different versions, ranging from very dark to a medium grey.

The vivid colours used for some of the structural elements and electrical systems were of great interest too, especially the bright green fuselage fuel cell and the blue mounts inside the nose.

The biggest surprise of the day though, was the original camouflage finish.

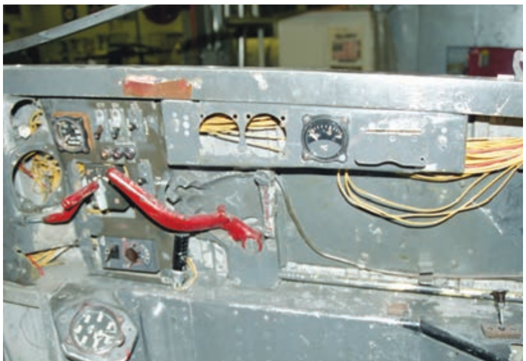
This aircraft had been repainted by the Allies shortly after capture, covering its original colours. However, when the wings were removed for restoration, an area of perfectly preserved original camouflage was revealed on the fuselage sides behind each wing root.

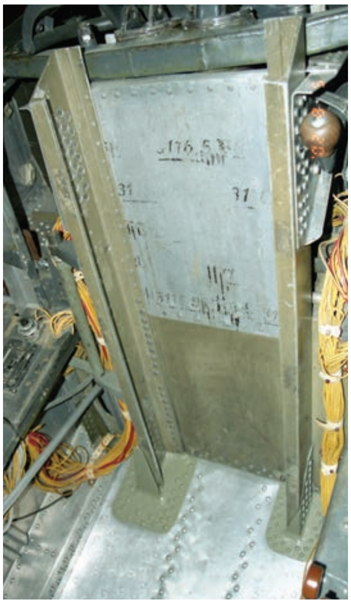
This was not, as we might expect, RLM 75 Grey Violet and RLM 76 Light Blue. Rather, it was a



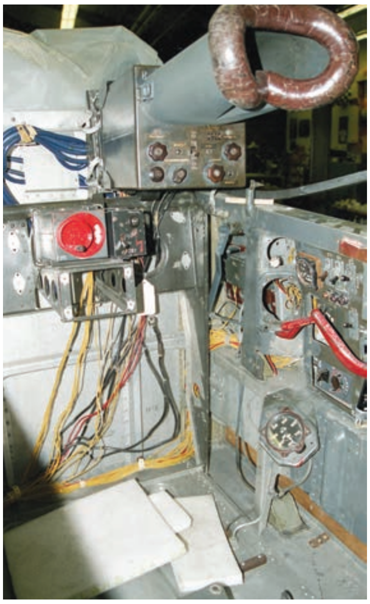
The knobs and handles on the port side quadrant are quite prominent.

The radar operator's (rear) port sidewall. Most of the instruments and fittings are missing.

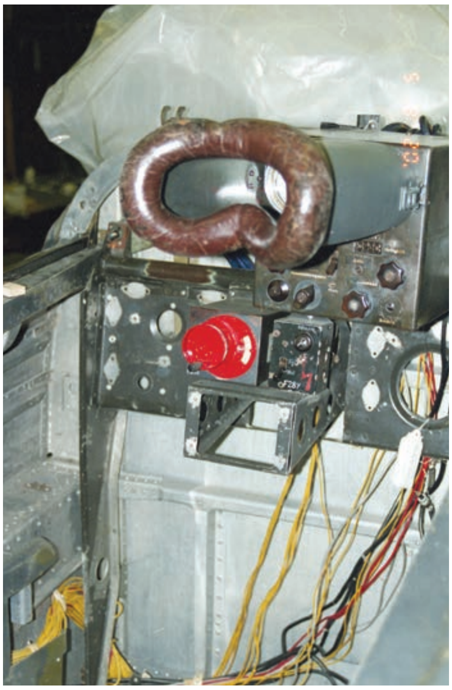




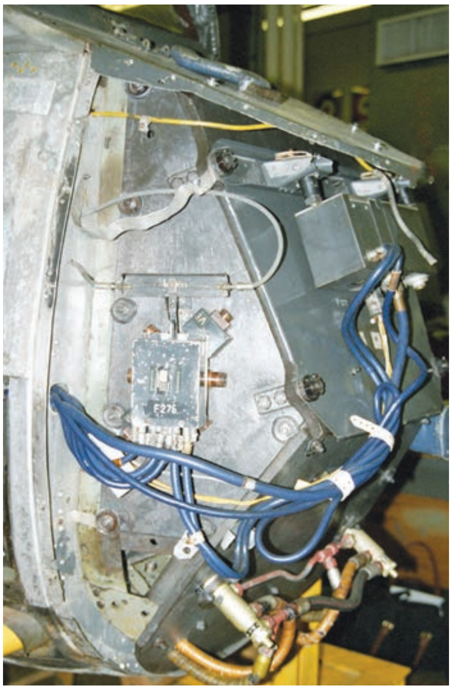
A full-height view of the pilot's ejection seat rails and the back cover. Note the factory stencil marks on the sheet metal of the upper back cover.



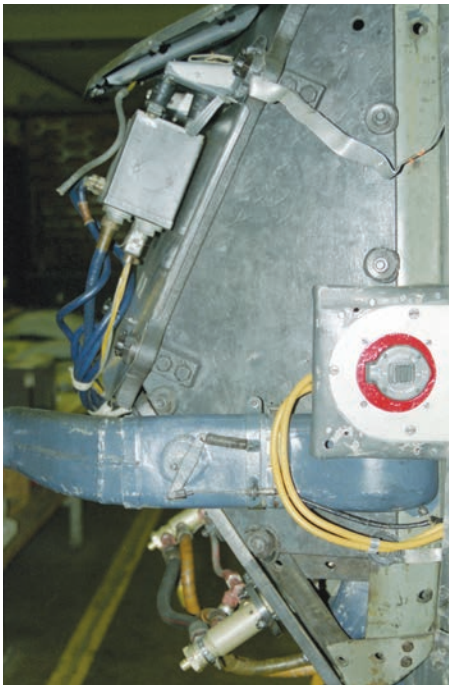
The radar and radio installation on the back wall of the cockpit is incomplete, but the radar shroud is present.



Some of the remaining parts give us some essential clues about colours and finish of the complete unit.



This is the exterior of the front of the cockpit, usually hidden behind the nose cap. The blue cabling and the salmon-coloured sealant on the hydraulic pipes (lower front) are of interest.



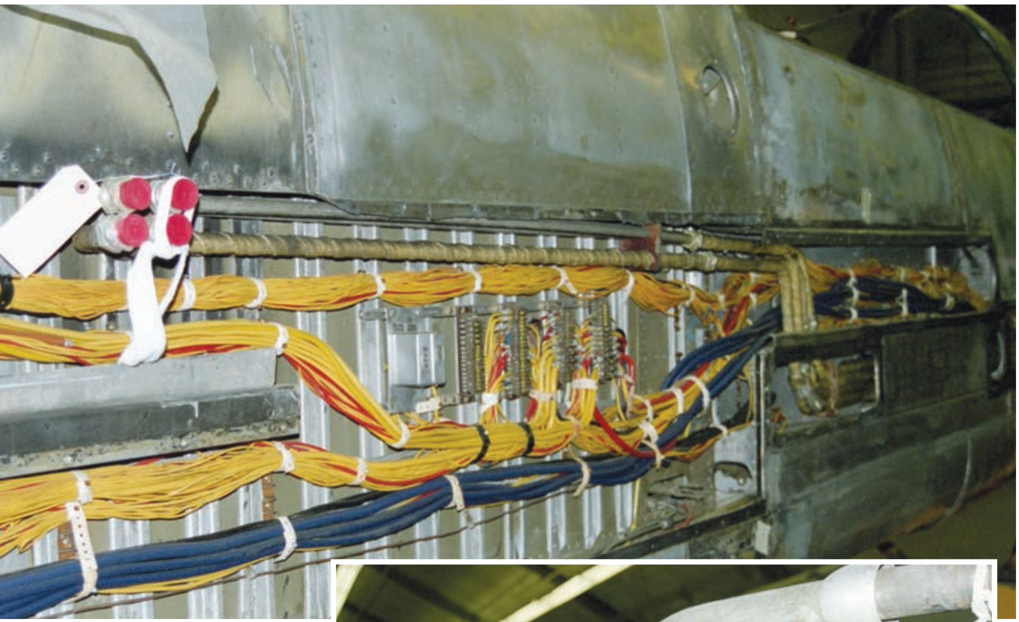
Port side view of the same area. Note the electrical coupling and the blue mount, presumably for radar.

distinctly yellowish green squiggle over the top of a medium-dark grey.

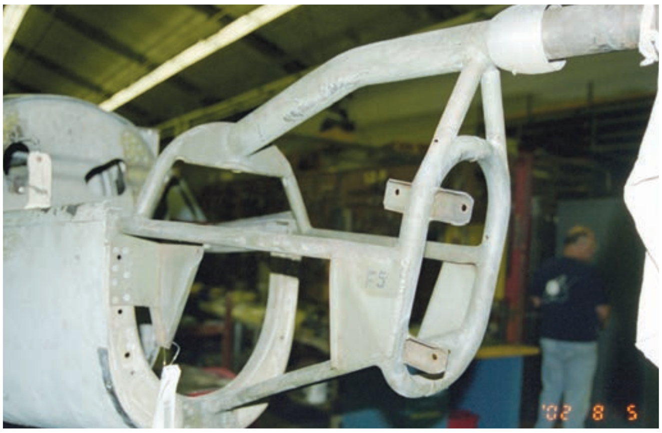
The pale yellow-green colour was similar to Federal Standard colour chip 34554, which in turn is similar to the "sky" shade seen on the Messerschmitt Bf 109 G-6, W.Nr. 163824 at the Australian War Memorial.

The medium dark grey may indeed have been RLM 75 Grey Violet. Traces of the black lower surfaces could be seen inside the wing root area too.

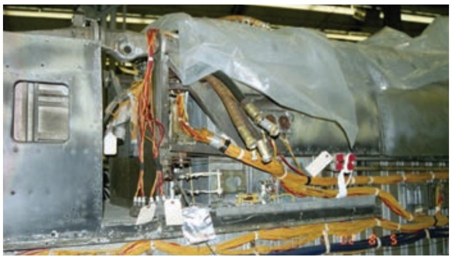
This raises some fascinating questions about whether other Heinkel He 219s were finished in these same colours. Perhaps the scheme always assumed to be a reverse mottle of RLM 76 Light



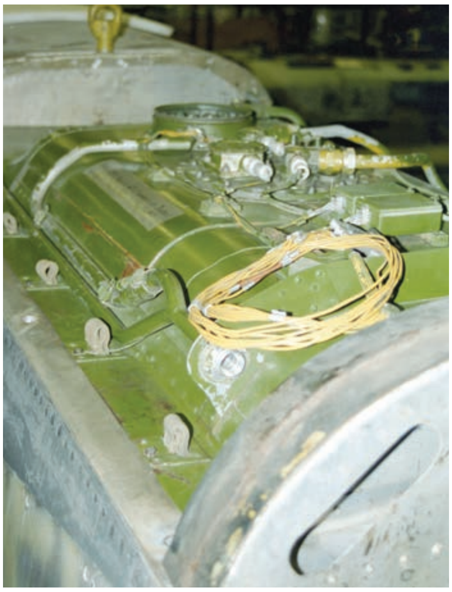
Side panels have been removed from the fuselage to reveal tidy yellow, red and blue cabling bundles.



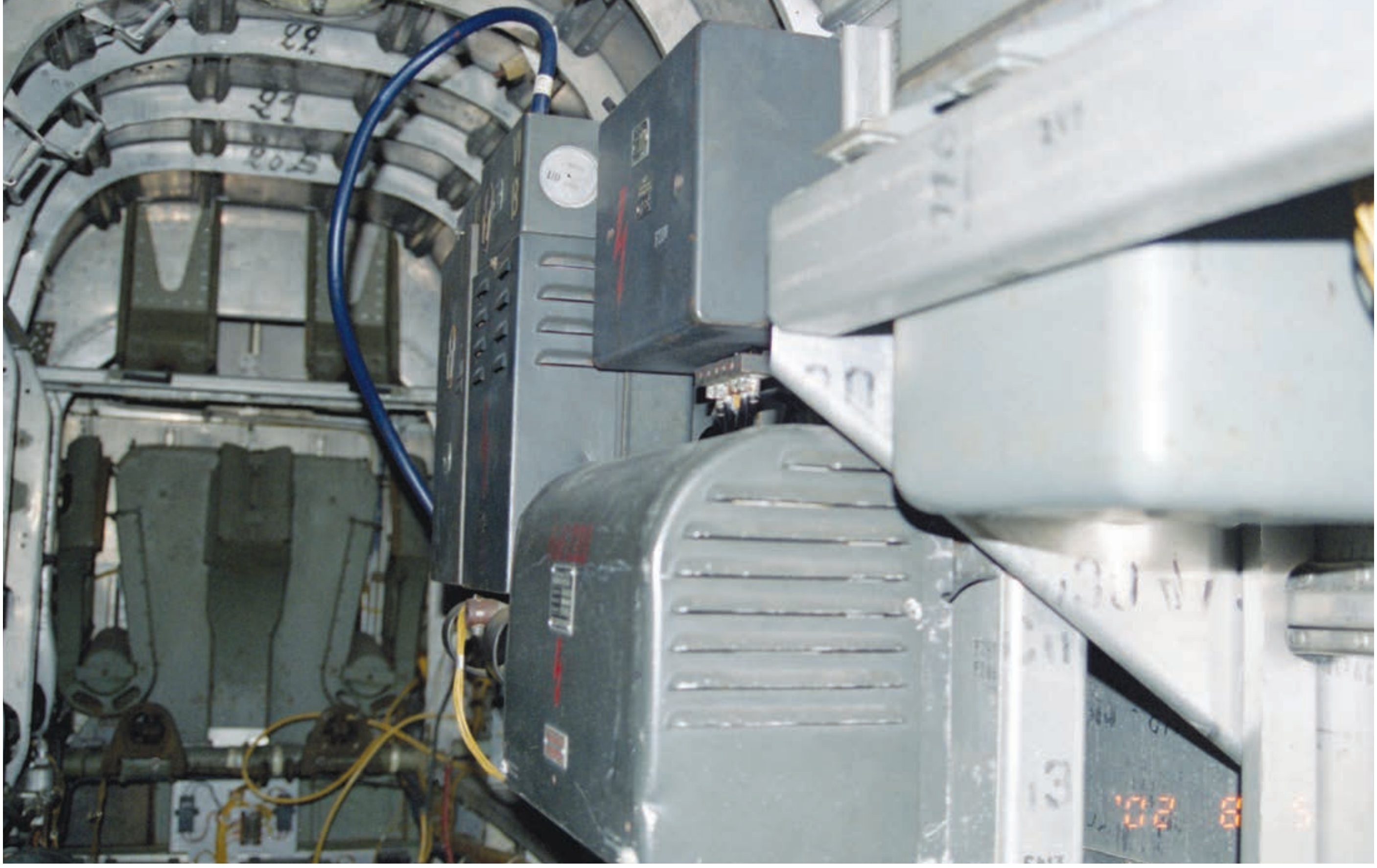
The tubular metal mount for the NAXOS tail radar.



Pneumatic connectors and more electrical cabling inside the fuselage.

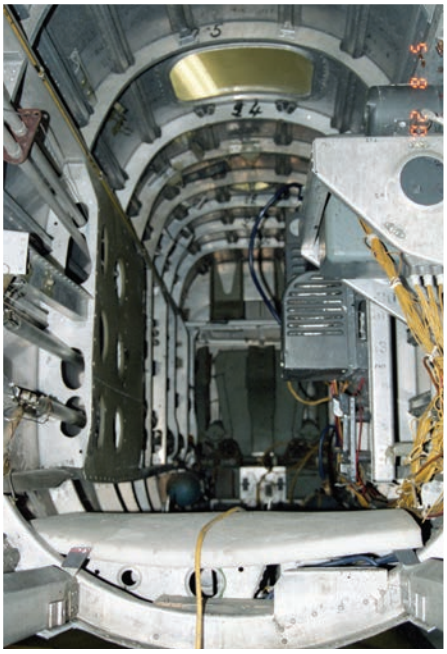


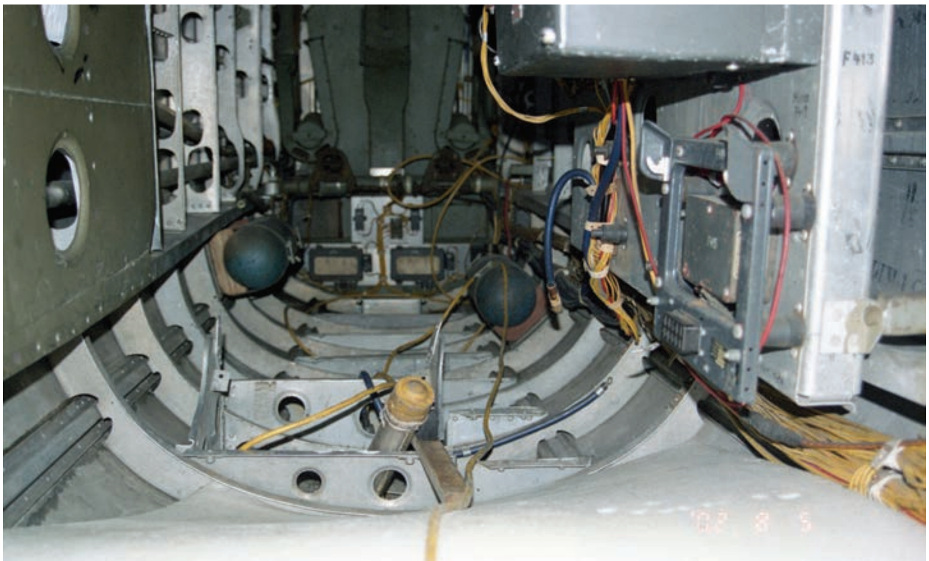
The fuselage fuel tank, viewed here from above the fuselage, is finished in quite a vibrant shade of green.



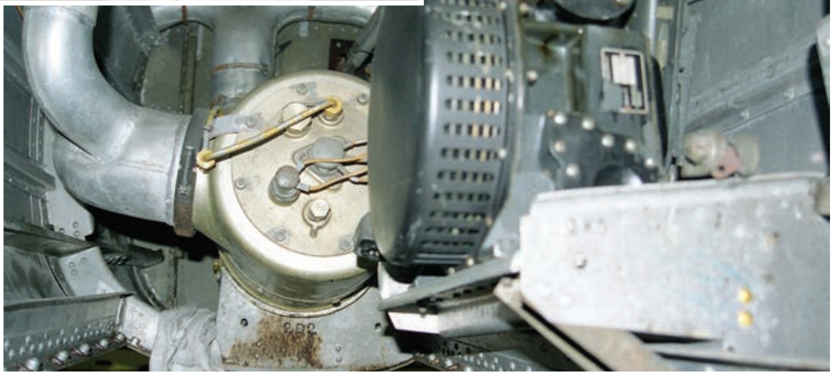
Inside the Heinkel He 219 fuselage, looking forward. Electrical boxes on the starboard interior wall. You can see the red warning lightning bolt. The bottom box closest to the camera is labelled FuG 220. Factory stencils are also present on the sheet metal and framing.

Note the unpainted metal finish throughout the interior. The fuselage station numbers have been hand painted at the top of each frame.

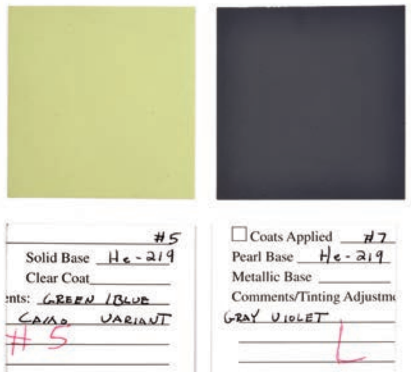




The two dark circular objects on the floor are compressed air charging bottles for the Schrage Musik cannon.



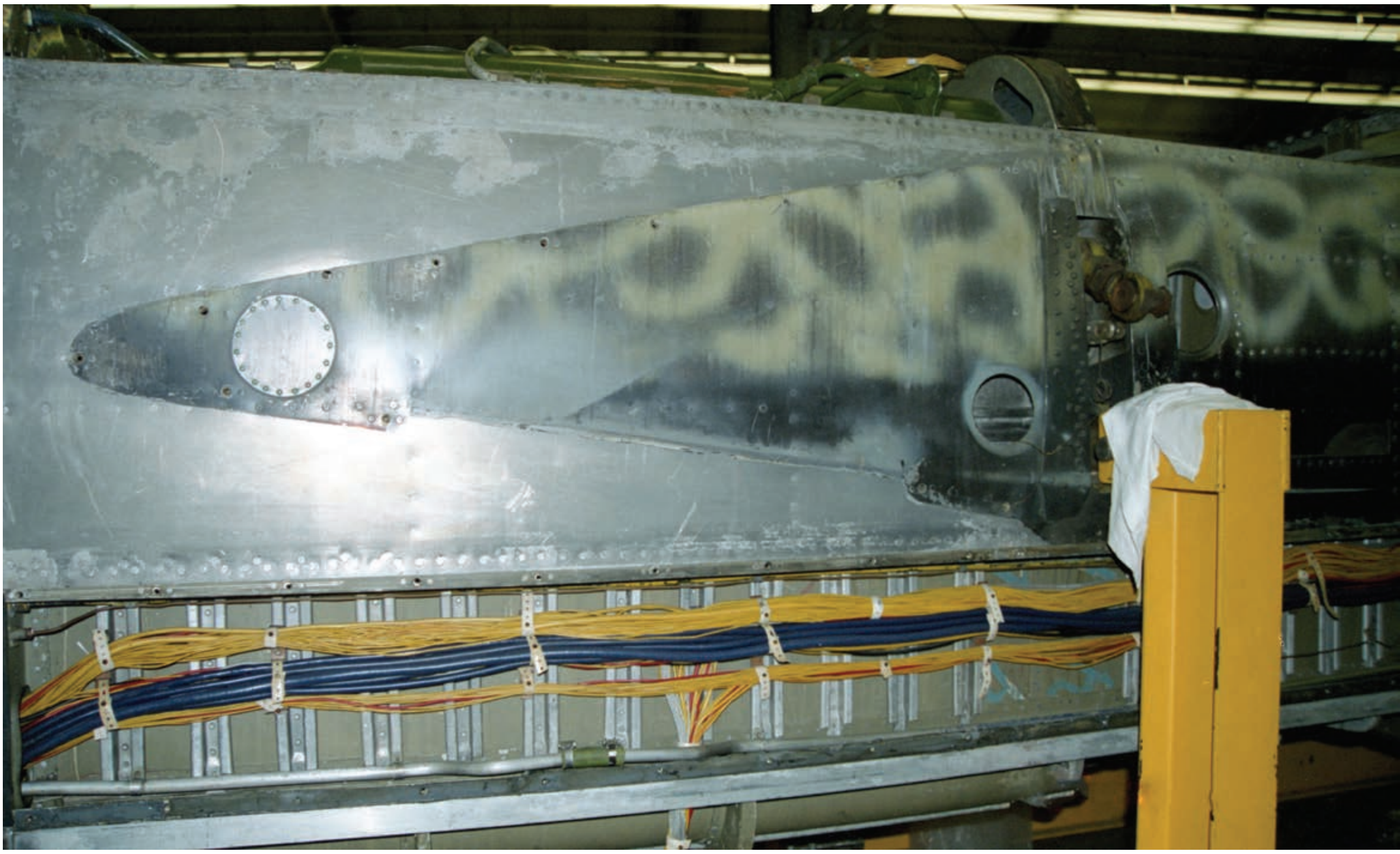
Looking aft now, these are elements of the fuselage heating and tail plane de-icing equipment.



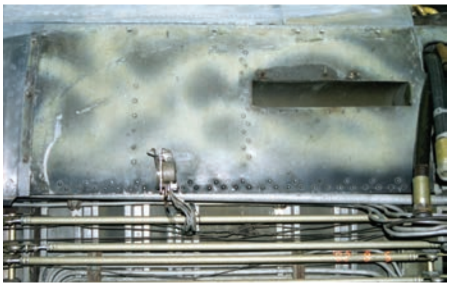
#5
Solid Base He-219
Clear Coat
ents: GREEN / BLUE
CAMO VARIANT
#5

☐ Coats Applied #7
Pearl Base He-219
Metallic Base
Comments/Tinting Adjustm
GRAY VIOLET
L

Staff at the National Air and Space Museum created paint chips based on spectrographic analysis of the actual colours used on this airframe. Here are photographic reproductions of Chip #5, labelled "Green / Blue" and Chip #7, Gray Violet. Unfortunately, the printing process means that these will likely not be particularly accurate reproductions, but I have made some notes on Federal Standard comparisons in the body text.



The original camouflage colours are present on the fuselage where the wings and tail planes have been removed. The disruptive squiggle is a distinctly yellowish pale green, similar to FS 34554. It is most certainly not RLM 76 Light Blue!



Another view of the yellow-green squiggle over grey. This would have been quite a striking scheme on the entire aircraft.

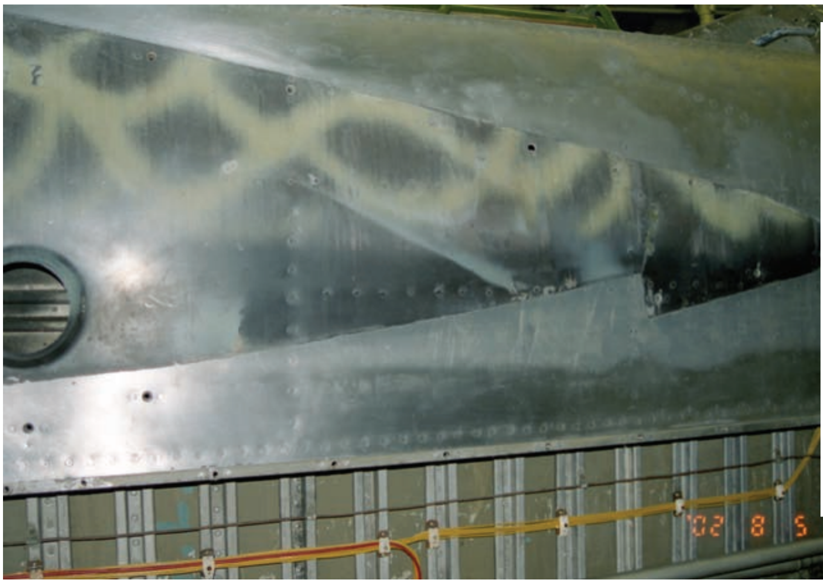
Blue over RLM 75 Grey Violet with Black lower surfaces was actually this late-war sky shade over RLM 75 instead.

The fact that this sky shade was similar to the colour also used on the Australian War Memorial Bf 109 G-6, in addition to a number of other stored relics at Silver Hill (including their Ju 388 and Ta 152) also raises the possibility that this colour may have been more standardised and more widely used than previously thought.

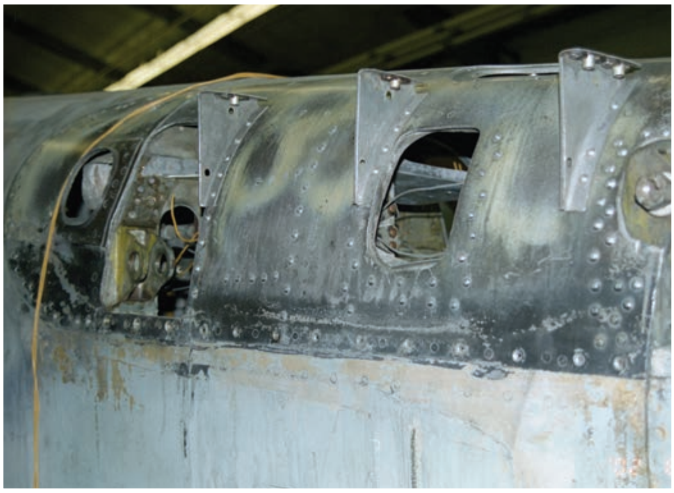
We may never have positive answers, but the questions are intriguing!

ACKNOWLEDGEMENTS

Thanks very much to Jerry and Judy Crandall from Eagle Editions www.eagle-editions.comfor inviting me along; and to David Wilson from the National Air and Space Museum for his hospitality on the day. •



The remnants of this aircraft's black factory finish lower surfaces may be seen inside the wing root too. The grey base colour for the upper surface is possibly RLM 75 Grey Violet, but it does appear fairly dark.



These same original Luftwaffe colours are present on the saddle under the tail planes.

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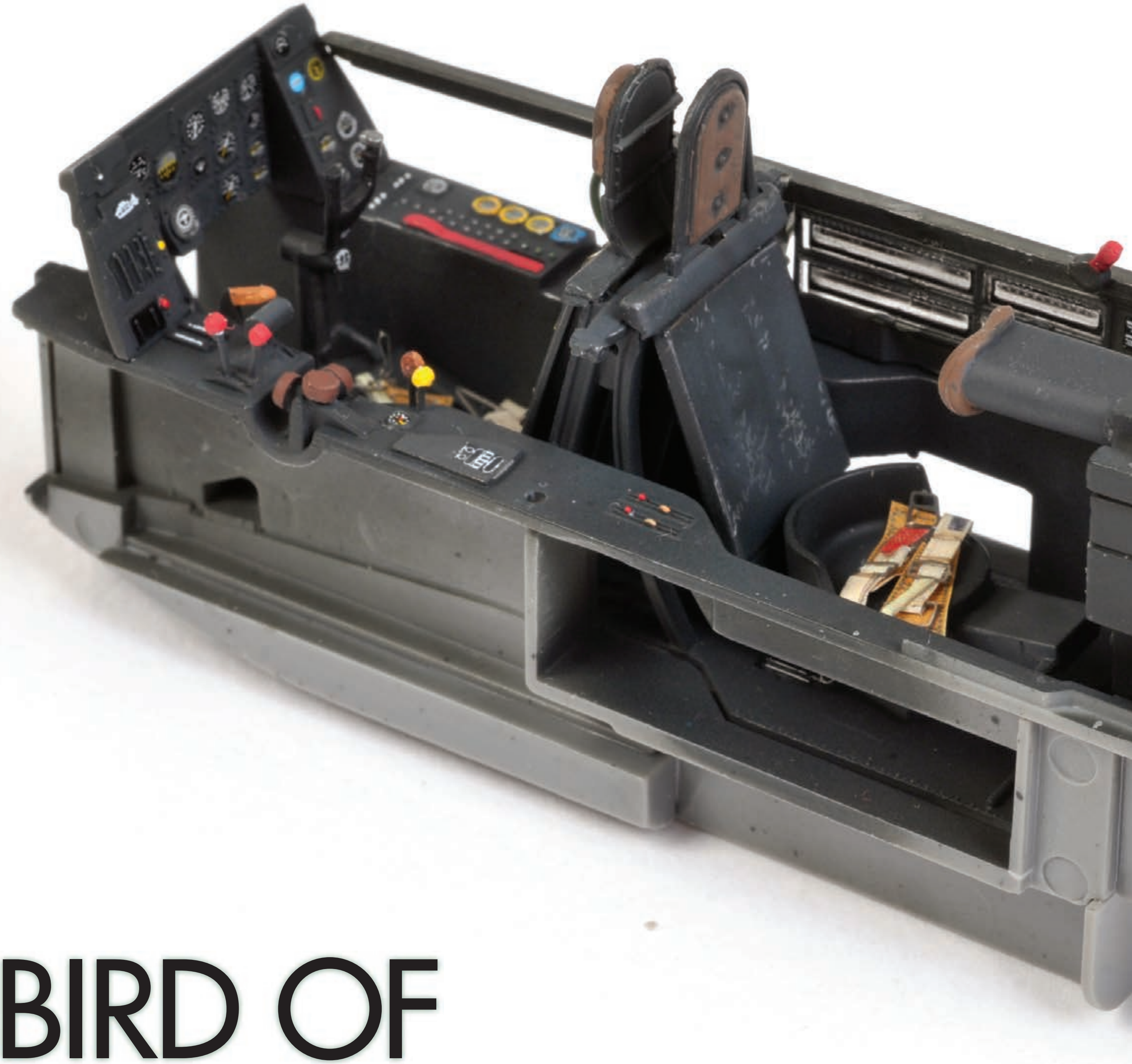
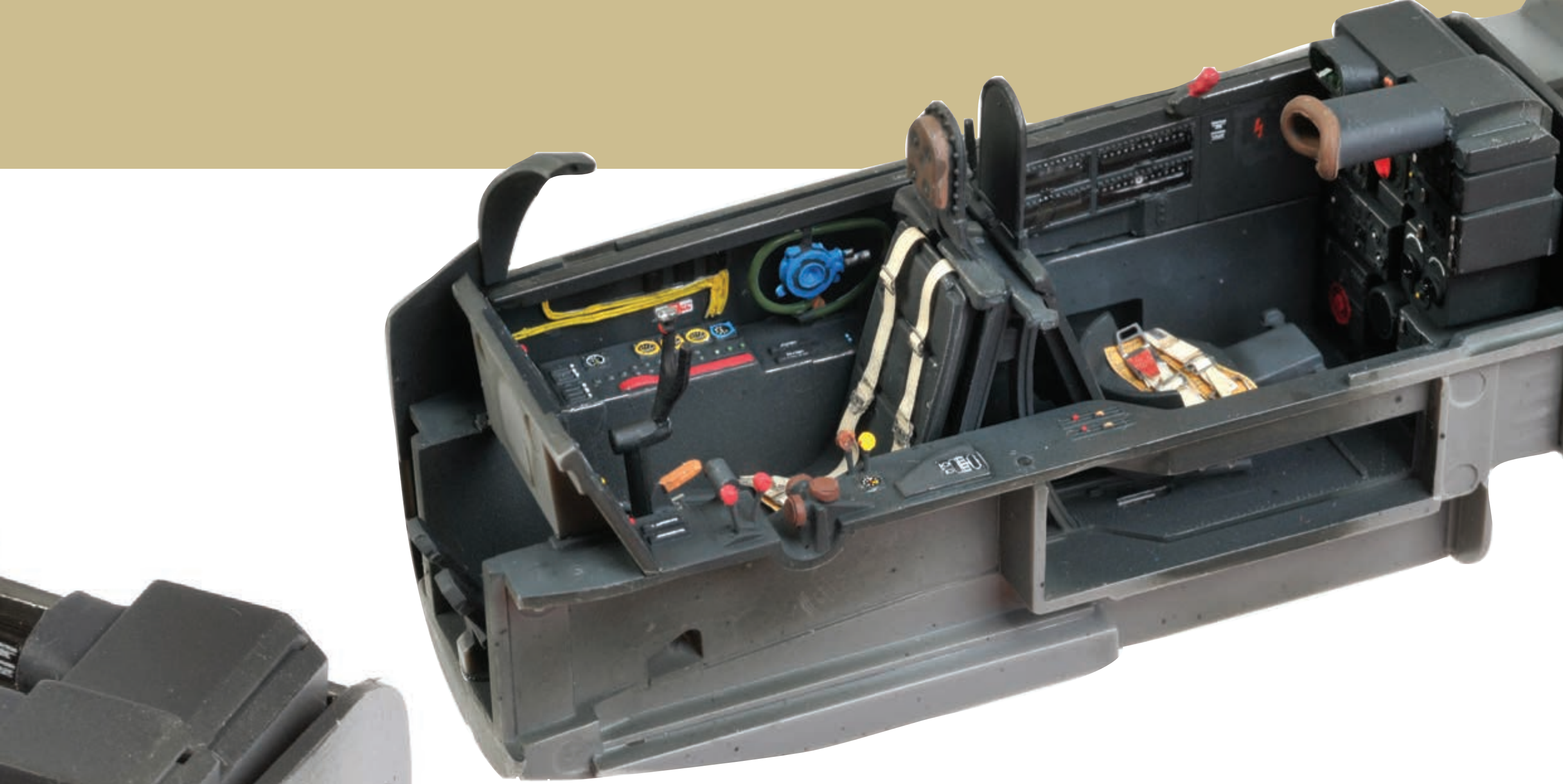


BIRD OF PREY

Part One - The Front Office

The British night-bombing campaign over Germany was in full swing by mid-1943. Germany's air defences used radar-based technology to counter this threat from the summer of 1941. These early tactics involved ground-based radar guiding a fighter into a zone where it could then engage the enemy aircraft.

Swift improvements in technology soon allowed sophisticated new radar to be installed in night-fighter aircraft, permitting more independent operations. However, the size, weight and additional workload imposed by the radar meant that the aircraft needed to be fairly large and manned by at least two crew - a pilot and a radar operator. Consequently, the aircraft used as night-fighters tended to be bomber or zerstorer types adapted to the role out of expediency. The



Revell continues its commitment to large scale Luftwaffe models with its 1:32 Heinkel He 219 A. In this instalment, the Editor examines the contents of a third-generation test shot, and builds the cockpit.

Messerschmitt Bf 110, Dornier Do 17 and 217 and the Junkers Ju 88 formed the backbone of the Luftwaffe's night fighter units.

Although the Ju 88 was quite well suited to the role, other types were barely capable of keeping up with the bomber stream.

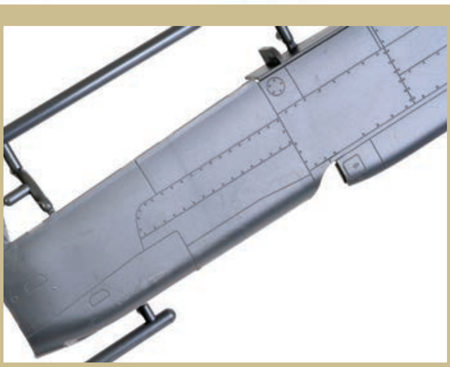
Heinkel commenced work on a purpose-built night fighter as early as January 1942. The Heinkel 219 V1 flew for the first time on 15 November, 1942. The road to production was plagued with supply problems and interference by the RLM. Only 320 He 219s had been delivered to Luftwaffe units by the end of 1944.

Nevertheless, the aircraft was by far the best production night-fighter the Luftwaffe could field. Even equipped with its massive offensive firepower of four 30mm MK 108 cannon, two 30mm MK 103 cannon and two 20mm MG 151 cannon, it could still attain a top speed of 416mph. Its flight characteristics were forgiving, and it proved to be easy to maintain under operational conditions.

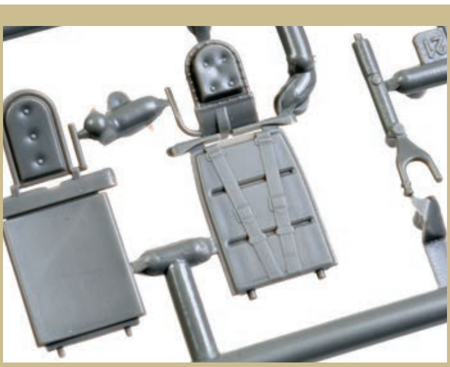
I/NJG 1 was the only Gruppe to be equipped with the He 219, although a small number of aircraft were attached to other units on the western front, including NJG 3.

TRADITION!

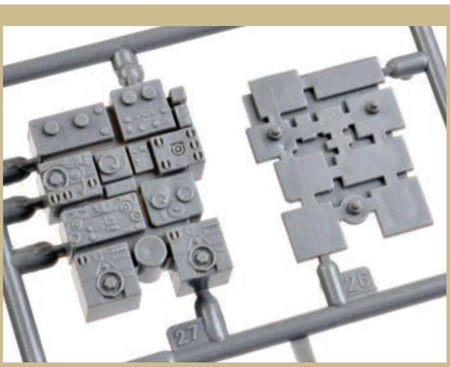
Throughout the 1960s and 1970s, Revell USA established a large-scale tradition with their iconic 1:32 scale fighter kits. Surely any modeller who was a child of this era prized their 1:32 scale Revell Spitfires, P-40s and Bf 109s above the regular 1:72 scale run-of-the-mill. I know that they were ➤



Surface detail is really well done – crisp, fine and consistent.



Revell has made an attempt at depicting harness straps (lap belts for the navigator and shoulder straps only for the pilot), but these will best be replaced with after-market belts.



Raised detail on the big radio / radar unit will respond very well to careful painting and weathering.

spectacular to my young eye at the time.

Revell of Germany has resurrected this large-scale tradition over the last decade with some remarkable new 1:32 scale releases. The difference is that these new models benefit from 21st century research, much higher levels of detail, and fewer gimmicks. One thing that has not changed, however, is Revell's affordable price tag.

In my opinion, the most impressive of these recent offerings has been the 1:32 scale Junkers Ju 88 A-1, the Heinkel He 111 and the Arado Ar 196.

Now Revell is about to release the best of the Luftwaffe's night fighters, the Heinkel He 219, in 1:32 scale.

WHAT'S IN THE BOX?

I was fortunate to receive a test shot of this kit, due for release around December 2012. The sprues are from the third generation of test shots. They are not quite production standard at this stage, but they are close. The differences between what you see in these photos and the final kit are likely to be cleaner parts with less flash, no scuffing on the plastic, and more highly polished moulds resulting in shinier clear plastic.

My test shot was accompanied by a pre-production set of instructions (almost ready by the look of it), and a complete sheet of decals. In other words, I had enough to build the kit!

Revell's new 1:32 scale Heinkel He 219 A comprises 247 parts in grey plastic and 14 parts in clear, with markings for an impressive selection of six aircraft.

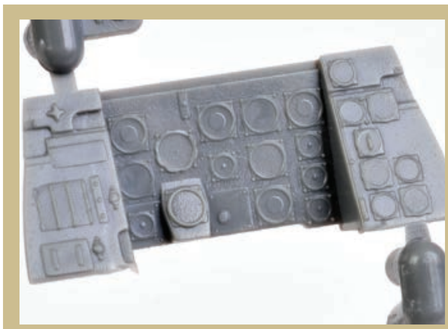
The kit offers optional parts that will allow the modeller to finish this He 219 as an A-2, an A-5 or an A-7.

These options include blanked-off lower gun ports, three styles of canopy including one with the NAXOS radar bulge, two styles of spinner hub, early and late FuG 220 Lichtenstein SN-2 radar, NAXOS tail radar, Schrage Musik cannon and more.

Surface detail is mainly by way of crisp and consistently recessed panel lines. By consistent, I mean that the depth and emphasis of the lines is the same even on complex parts with multiple curves such as the fuselage halves.

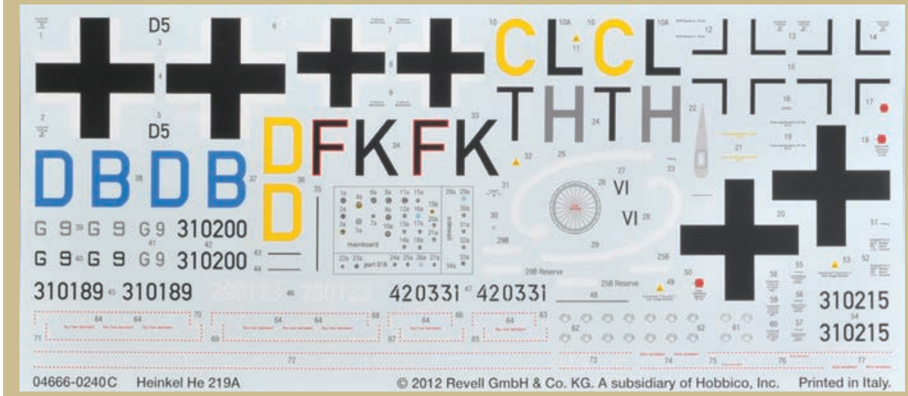
Detail is excellent. The cockpit is very well fitted out and looks accurate. The only areas that could use some enhancement are the half-hearted moulded-on harness straps (shoulder harness only for the pilot and lap straps for the radar operator); and the understated throttle and mixture quadrants on the portside console.

The instruments are supplied as individual decals that are applied over flat circles inside raised bezels. I really like this approach.

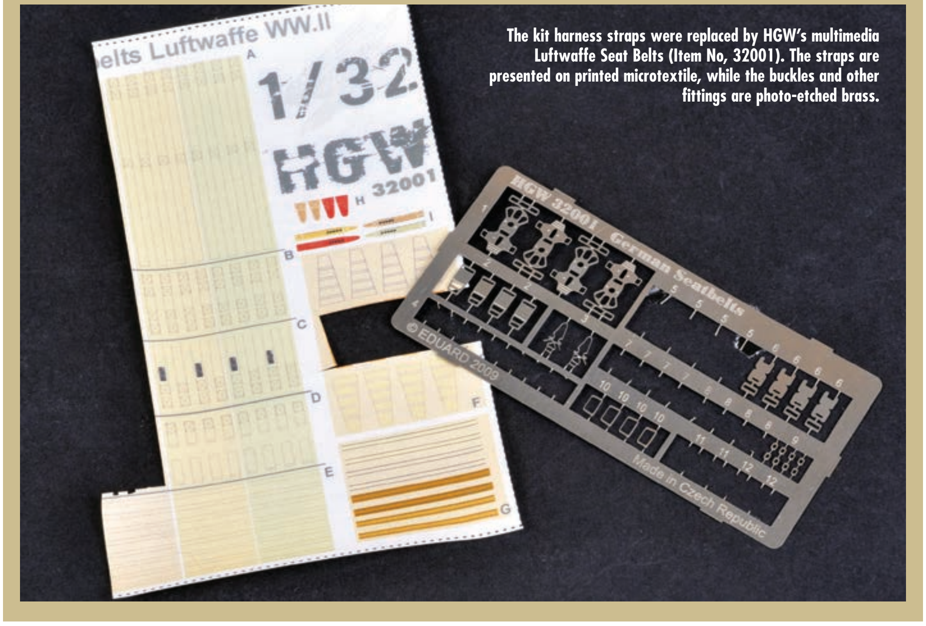


Individual decals are supplied for the kit instrument panel, which is moulded with flat dials and raised bezels.

These are two of the three optional canopy parts supplied with the Revell kit.

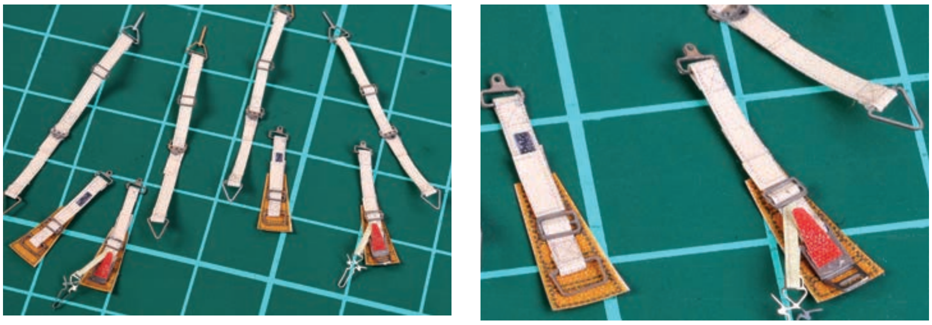

04666-0240C Heinkel He 219A
© 2012 Revell GmbH & Co. KG. A subsidiary of Hobbico, Inc. Printed in Italy.

Up to six aircraft may be depicted from the kit decal sheet. The printing is good and register is perfect. Although the decals are flat in finish, the carrier film disappears if you ensure that the kit surface is glossy and that a thorough flat coat is applied afterwards.

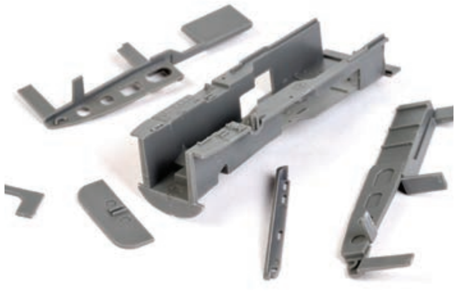


The kit harness straps were replaced by HGW's multimedia Luftwaffe Seat Belts (Item No, 32001). The straps are presented on printed microtextile, while the buckles and other fittings are photo-etched brass.

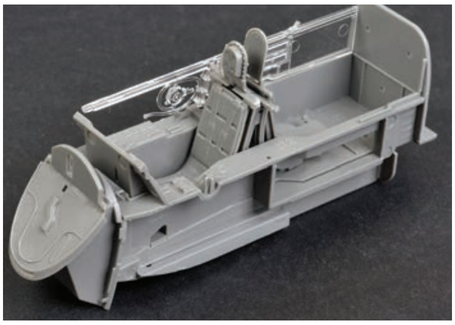
The straps were carefully cut out using a brand new hobby knife blade and a steel rule as a guide. Two pairs of fine tweezers are almost essential to thread the soft straps through the small photo-etched hardware.



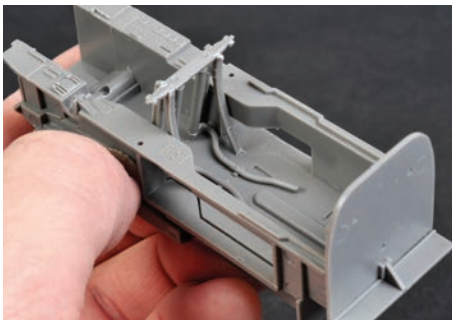
The finished harness straps. Note the rogue spur of photo-etched sprue on the end of one of the metal parts. Despite wearing an Optivisor, I did not even notice this until this heavily magnified image was on my computer screen. This excess metal was cut off before the straps were fitted to the seat.



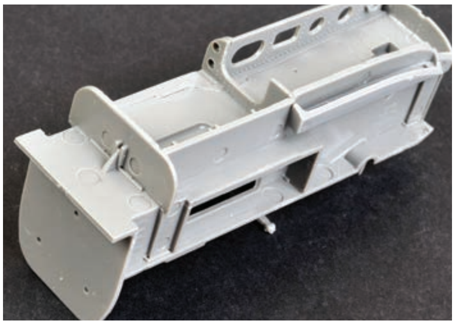
The basic structure for the cockpit is made up from six plastic parts. This is also the structure for the front landing gear and pilot's boarding ladder bays.



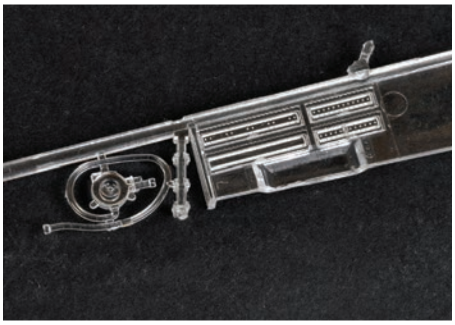
The basic cockpit parts have been glued together and while several other parts are test-fitted.



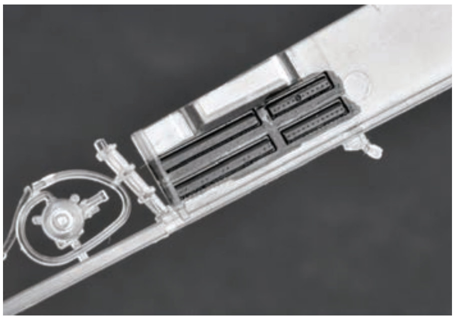
Note the location of the lines running to the base of the ejection seat mount.



A view from the bottom – the nose wheel and pilot's ladder bays underneath the cockpit floor.



Revell supplies a clear part for the starboard cockpit sidewall. This permits some creative painting of the navigator's switch panel. First, the small recessed holes on the back of the panel are painted white. Any excess paint may be wiped off before it is dry.



The back of the switch panel is now painted black – over the top of the previously painted white spots.

INFO: For more than 60 photos of the contents in-box, you may visit the Preview page on HyperScale http://www.hyperscale.com/2012/reviews/kits/revell04666reviewbg_1.htm

The wheel wells and landing gear are also well detailed. The nose gear and pilot's ladder bays are integrated with the assembly of the cockpit.

All control surfaces including landing flaps are separate and may be posed neutral or deflected / dropped. The annular radiators inside the forward engine cowls are correctly depicted by five separate paird of elements on each side.

The engineering of this kit is similar to others in Revell's latest generation of 1:32 scale kits. The wings are held in place by a pair of stout spars that are fitted between the fuselage halves, which should result in a robust fit and perfect dihedral. There are long dorsal and ventral inserts for the fuselage, which means that seam lines will not fall on the centreline but on natural panels. There are a few holes that need to be drilled out depending on what variant you are building, so make your decision early and keep an eye on the instructions.

Markings for six aircraft are included – five from NJG 1 and one attached to NJG 3. Five of the aircraft are finished in RLM 76 Light Blue lower surfaces with an RLM 76 and RLM 75 mottle (or squiggle) on top. The remaining aircraft sports black lower surface with mottled upper surfaces. Although the instructions quite reasonably call out RLM 76 Light Blue and RLM 75 Grey Violet for the upper surfaces, based on the example at the Smithsonian Institution this may well be the "sky green" colour in a tight squiggle over grey.

BUILDING THE COCKPIT

My draft instructions contained one error that I have found so far. It is possible that this will be corrected by the time the kit is released, but I should mention it here in case it slips through.

The forward section of the cockpit, Part 12, is shown upside down in Steps 6, 8, 9 and 10 of the instructions. The curved section, shown at the top in the instructions, should actually be at the bottom. If you glue Part 12 to the front of the cockpit with the curved side at the top, the nose cap will not fit on the fuselage and the fairing (Part 22) will not sit at the correct angle. Make sure that the curved area of Part 12 is lined up with the curved bottom of the cockpit floor (Part 1).

I glued Part 22 to the curved face of Part 12 before I realised this error. As a result, I had to separate the parts with a razor saw, as the liquid cement had virtually welded the piece together. You can save yourself the trouble with a little vigilance.

The other curiosity was that I could not find Part 29 on the sprues. This is one of the viewing shrouds for the radar. I may have lost it, or it may not have been included in my set of test shots, or I may have been suffering from "modellers blindness" and simply not seen it. Whatever the case, I wound up using a short section of plastic as a rough substitute. If the proper part turns up, I will fit it instead.

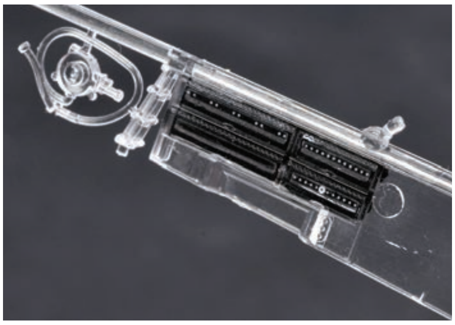
These were the only problems that I encountered with the cockpit.

The cockpit assembly is very well detailed straight from the box but I decided to add a few extras.

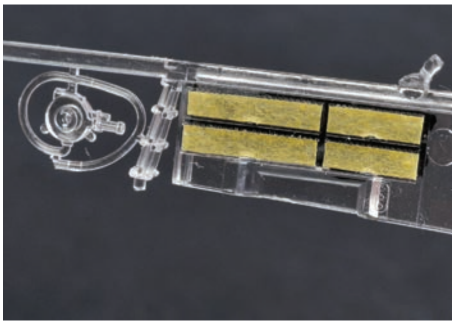
The first of these were HGW microtextile harness straps to replace the partial harnesses moulded to the pilot's and navigator's seats.

These harness straps look fantastic when finished but they are a bit of a challenge to assemble. I took extra care to very precisely cut the pre-printed straps from their thin sheet of fabric using a brand new Olfa knife blade and a steel rule as a guide. I was also wearing an Optivisor magnifying headset during every step of preparation and assembly of the belts.

The two sets of harness straps were eventually completed after two sessions of around 2-3 hours each.



This is what the panel looks like from the front face – white lights on a black background behind clear covers.



The four clear covers were masked with Tamiya tape before painting of the cockpit got underway.

The navigator's and pilot's seats assembled.

Here, the moulded-on shoulder straps have been carved off the pilot's seat.

The throttle and mixture handles are not spherical knobs in this instance, but thick circles. These were formed using my Waldron Miniature Punch and Die set.

◄ HGW has made the process a little less painful with the release of a new range of microtextile harnesses with the straps already cut to size and ready to thread. Although the new fabric straps would mostly cover the moulded-on plastic harness, I decided to carve off the raised plastic from the back of the pilot's seat. I started with a sharp hobby knife, followed by progressively finer sanding sticks. My Mission Models Micro Chisel came in handy to dig out some of the plastic left in the corrugated recesses of the seat.

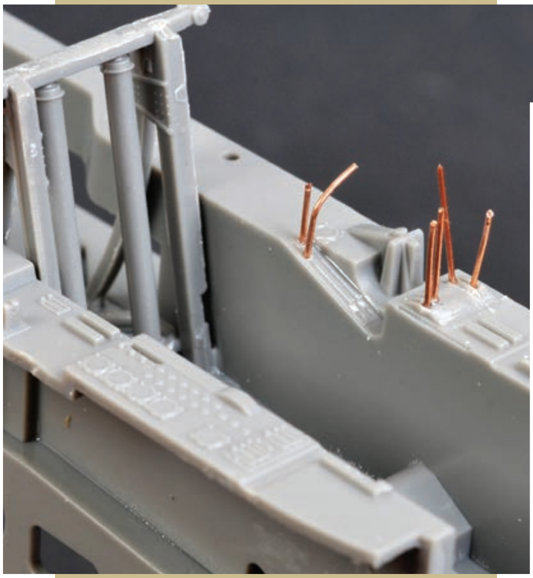
Some of the prominent quadrant, knob and handle detail was understated or missing from the pilot's port side console. I started by drilling holes for new handles cut from copper wire. These were secured with super glue.

The throttle and mixture handles are not spherical knobs in this instance, but thick circles. These were formed using my Waldron Miniature Punch and Die set. The plastic knobs and fittings were attached to the copper handles with super glue.

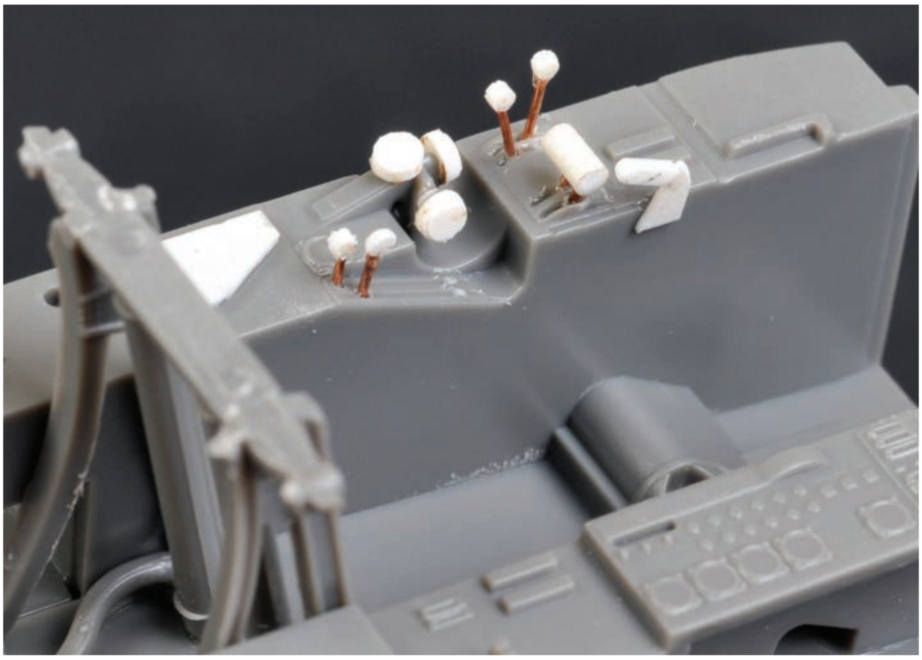
In line with my reference photos, fine electrical wire was also glued to the forward starboard sidewall.

PAINTING THE COCKPIT

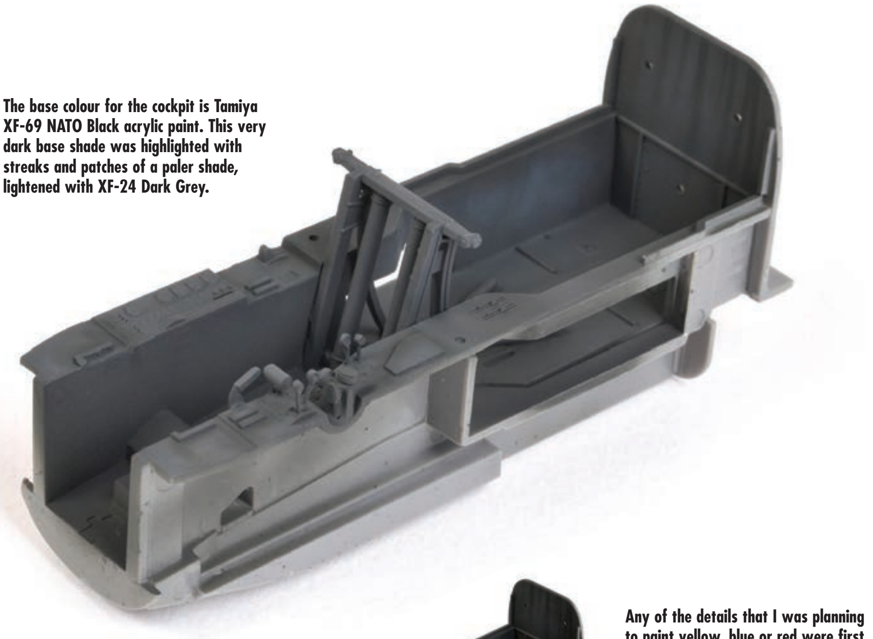
Revell cleverly supplies the starboard cockpit sidewall as a clear part. This allows for some creative painting of the navigator's switch panel. First, the small recessed holes on the back of the panel were painted white. Excess paint was wiped off before it dried. The back of the switch panel was now painted black – over the top of the previously painted white spots. The four clear



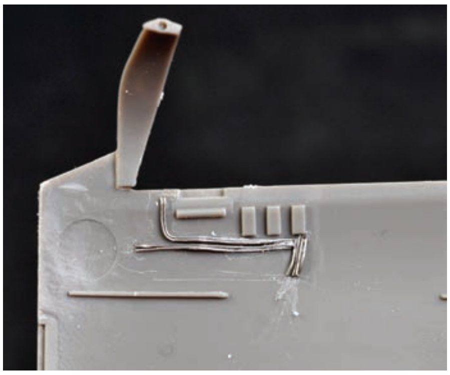
Some of the prominent quadrant and handle detail on the pilot's port side console was understated or missing. I started by drilling holes for new handles cut from copper wire. These were secured with super glue. Note that these are intentionally too long at the moment. This makes handling and installation easier. They will be cut to length when the super glue has set.



The plastic knobs and fittings have been attached to the copper handles with super glue.

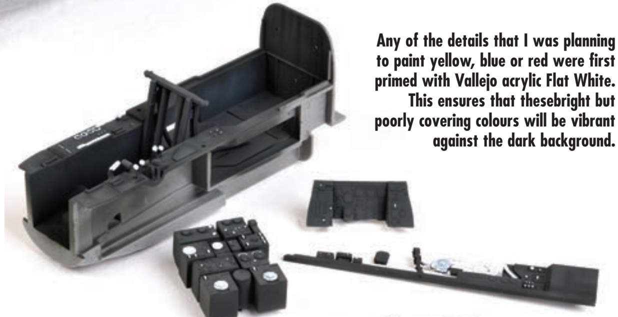


The base colour for the cockpit is Tamiya XF-69 NATO Black acrylic paint. This very dark base shade was highlighted with streaks and patches of a paler shade, lightened with XF-24 Dark Grey.

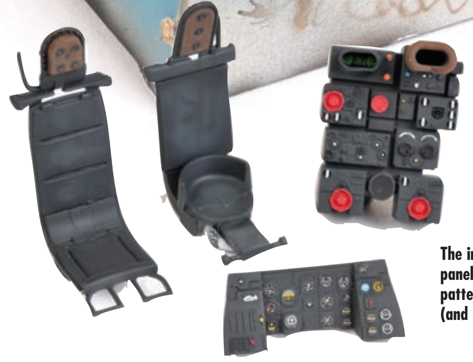


Fine electrical wire was glued to the forward starboard sidewall.

The sub-assemblies and separate parts were temporarily attached to a small box with Blu-Tack before receiving the same paint finish as the main cockpit tub.

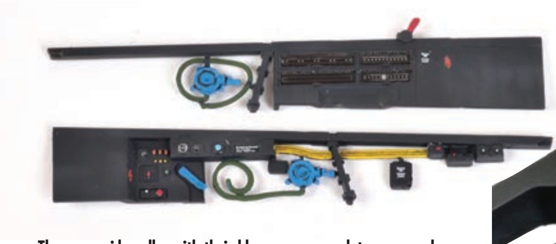


Any of the details that I was planning to paint yellow, blue or red were first primed with Vallejo acrylic Flat White. This ensures that thesebright but poorly covering colours will be vibrant against the dark background.

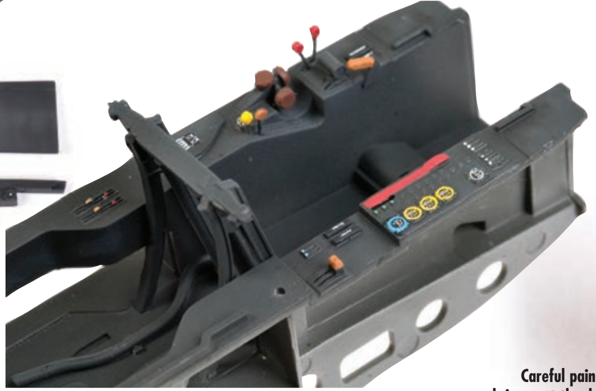


I was particularly anxious to correctly depict the distinctive red ejection seat handle and the yellow bezels, all on the starboard pilot's console. I was careful to accurately paint the outlines of the bezels, but the interior borders were not so critical as these would be covered by the kit dial decals.

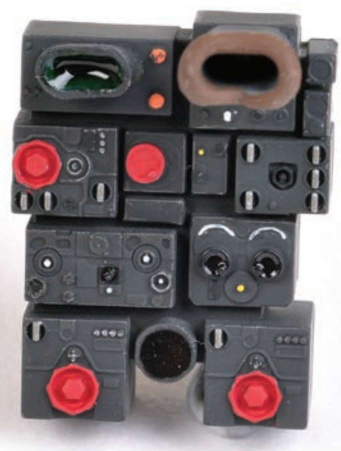
The instructions do not specify the location of each individual dial for the instrument panel. Fortunately, however, they are arranged on the decal sheet in the same pattern as they appear on the panel. I was careful to keep them in the right order (and orientation) as I applied the decals. In the end, they performed beautifully.



The upper sidewalls, with their blue oxygen regulators, green hoses, yellow electrical cabling and various switches. The masking tape has been removed from the switch panels too, revealing a convincing and subtle effect.



The big colourful quadrant handles make a noticeable difference to the pilot's port side console; as do the coloured instrument bezels on the other side.



Careful painting brings out the detail on the radio / radar operator's position.

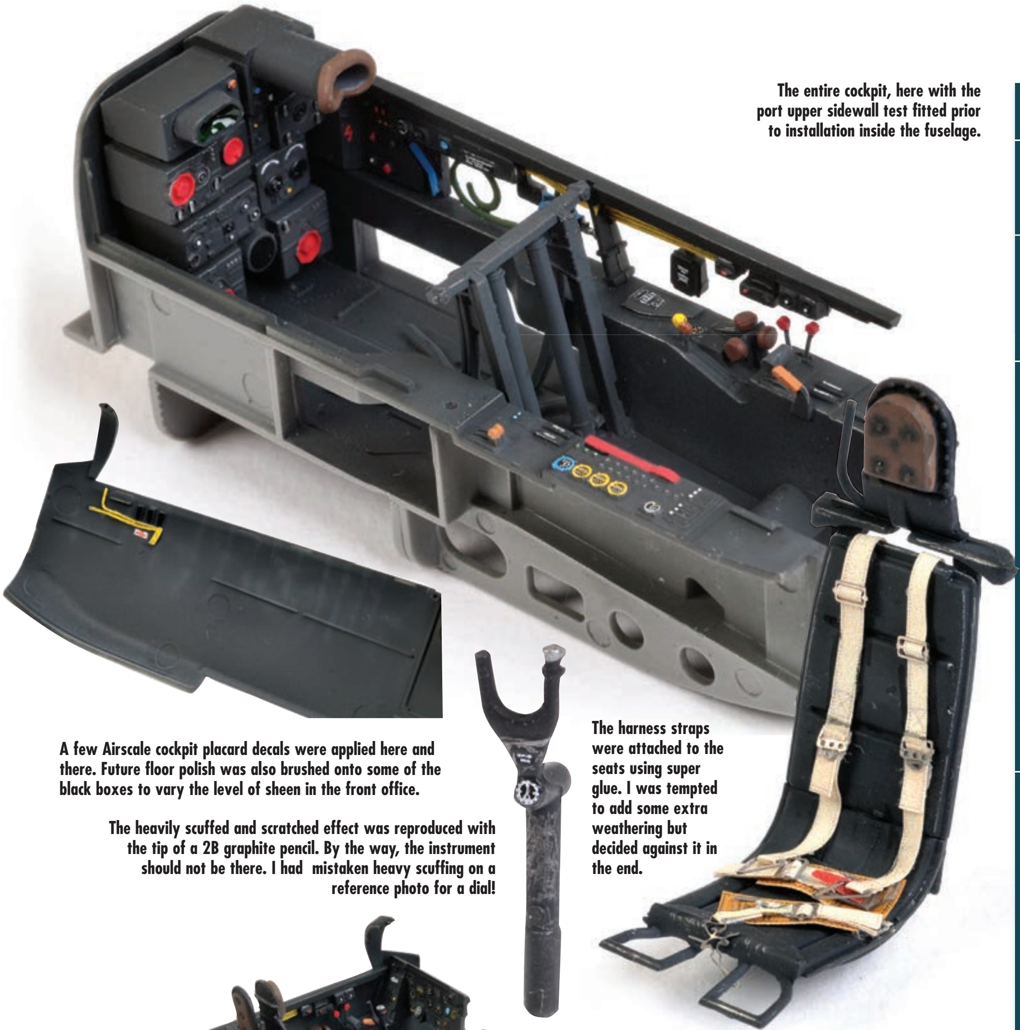
covers were masked with Tamiya tape before painting of the cockpit got underway.

The base colour for the cockpit is Tamiya XF-69 NATO Black acrylic paint. This very dark base shade was highlighted with streaks and patches of a paler shade, lightened with XF-24 Dark Grey.

Details were picked out using Vallejo acrylics and a fine brush.

Once basic painting was complete, the cockpit received a coat of Future floor polish and the instrument decals were applied. Although their finish is alarmingly flat, they worked really well. I was a little worried that the exact location of each individual dial was not called out in the instructions, but fortunately they are located on the decal sheet in the same positions as they appear on the instrument panel. I took care to keep them in the correct order while cutting the decals out and applying them.

A generous brushing of Solvaset helped the decals conform to the dials and raised bezels. The carrier film disappeared under a final coat of ➤



The entire cockpit, here with the port upper sidewall test fitted prior to installation inside the fuselage.

A few Airscale cockpit placard decals were applied here and there. Future floor polish was also brushed onto some of the black boxes to vary the level of sheen in the front office.

The heavily scuffed and scratched effect was reproduced with the tip of a 2B graphite pencil. By the way, the instrument should not be there. I had mistaken heavy scuffing on a reference photo for a dial!

The harness straps were attached to the seats using super glue. I was tempted to add some extra weathering but decided against it in the end.

The cockpit tub and port sidewall were text fitted inside the port fuselage half to make sure there were no obstructions before committing to glue.

The cockpit tub was now glued to the starboard fuselage interior. The electrical cabling lines up nicely with the side console and the instrument panel.

MINI MODELSPEC

Revell 1:32 scale Heinkel He 219 A. Kit No. 04666

Accessories Used:

HGW Item No. 32001 - Seat Belts Luftwaffe WWII

Airscale Item No. AS32 SCH – WW2 Luftwaffe Cockpit Placards

Tools and Modelling Products Used:

Evergreen plastic strip and sheet

Waldron Punch and Die Set

Copper wire

Tamiya Extra Thin Cement

Revell Contacta Cement

Selley's Super Glue

Tamiya Surfacer

Zip Kicker (super glue accelerator)

Tamiya Masking Tape

Blu-Tack

Irwin Clamps

Paints and Finishing Products Used:

Tamiya (acrylic): X-18 Semi-Gloss Black; XF-1 Flat Black; XF-2 Flat White; XF-24 Dark Grey; XF-64 Red Brown; XF-69 NATO Black.

Vallejo Model Color (acrylic): 70891 Intermediate Green; 919 Foundation White; 70953 Flat Yellow; 70957 Flat Red; 963 Medium Blue

Vallejo Panzer Aces (acrylic): 312 Leather Belt

Testor's Model Master Flat Clear Lacquer Finish

Solvaset decal setting solution

Future Floor Polish

⊕ Crisp and restrained surface textures; high level of detail; optional parts to build He 219 A-2, A-5 or A-7; positionable control surfaces; solid and straightforward engineering; nice clear and thin transparencies.

⊖ One error found in draft instructions; some understated cockpit detail.

Rating: **9 out of 10**

Revell model kits are available from all good toy and model retailers. For further information visit www.revell.eu

Testor's Flat Lacquer.

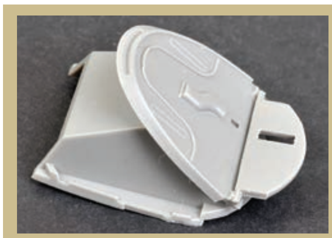
The lenses of each dial were now painted with a spot of Future floor polish. This was repeated when the first coat was dry, resulting in a nice glassy appearance.

CONCLUSION

In common with its recent large-scale siblings, Revell's 1:32 scale Heinkel He 219 is well detailed, thoughtfully engineered and keenly priced.

This is clearly another big winner from Revell, in every sense of the word!

Construction so far has been trouble free. Next time we will close the fuselage and finish building the airframe. •



The instructions suggest that the top cover for the nose (part 22) should be glued to the front cockpit section (part 12) as shown in this photo. However, this is not correct. Part 12 is shown upside down in the instructions.

The two parts were virtually welded together. I had to saw the top cover off then clean up the residual plastic with a coarse sanding stick.

Next time, we will cover construction of the big airframe.

TORA TORA TORA!

MITSUBISHI A6M2b
ZERO FIGHTER (ZEKE)
零戦
1/72 SCALE WAR BIRD COLLECTION 80
WINGSPAN 167mm.
FUSELAGE 126mm.
1/72
TAMIYA
80

Tamiya expands its 1:72 scale Zero family with a Pearl Harbour A6M2b. The Editor takes a look.

Tamiya released their game-changing 1:32 scale A6M5 Zero more than a decade ago, followed by their stunning 1:48 scale Zero in 2008.

It was therefore pleasing but no surprise when Tamiya released a brand new 1:72 scale Mitsubishi A6M5 Zero in the first quarter of 2012. When I reviewed that kit earlier this year, I noted my wish that Tamiya would work their way through the Zero family.

It looks like my wish is coming true!

Tamiya has now delivered a new 1:72 scale A6M2b comprising 72 parts in grey plastic; five parts in clear; two polythene caps and decals for three marking options, all from the 2nd Strike Force during the attack on Pearl Harbour.

In common with its earlier sibling, moulding quality is perfect. Surface detail is remarkable for this small scale, mainly by way of very finely recessed panel lines, with some subtly raised fabric strips on control surfaces. Selected rows of subtle rivets are present along some of the lower wing panel lines too.

Detail is excellent throughout, but the cockpit in particular is every bit as good as the superb A6M5 front office. The seat is realistically thin. Lightening holes are represented by indentations, but a few minutes with a pin vise will hollow them out. Sidewall detail is deep and accurate, with the various quadrants and boxes added from separate parts. The floor features an open space for the clear viewing window. The instrument panel is mounted on the back of the ammunition bins and with the gun breeches included. The panel features decal instruments, which should look fantastic if carefully aligned.

The wheel wells are authentically deep and busy.

The engine is equally good. It is made up of only four parts, but it looks great. Cooling fin detail is crisp, while pushrods are moulded to the front cylinder face.

The one-piece engine cowling is seamless.

Cowl flaps are moulded shut, and all control surfaces are in neutral positions, including the closed landing flaps.

Poly caps are used to fit the propeller assembly and the drop tank.

The clear parts are thin and completely free of distortion. Alternative canopy parts are included for closed or open configurations – a nice touch. A well detailed reflector gunsight is also provided in clear.

Markings are supplied for three aircraft. All are finished in overall IJN Grey Green with Blue-Black cowlings. The aircraft depicted on the very attractive box art is not one of the marking options. Rather, it is a favourite painting of Mr. S. Tamiya.

The decal sheet includes printed harness straps for the pilot's seat.

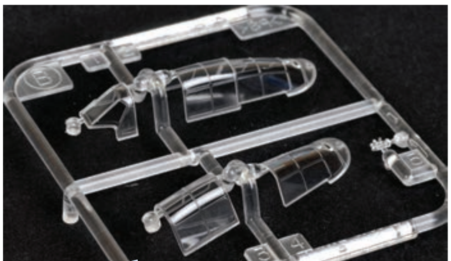
Tamiya's 1:48 scale Zeros include canopy masks but its smaller cousins do not.

Tamiya's 1:72 A6M2b Zero is beautifully detailed, with one of the best small scale cockpits straight from the box available today. The model should be a pleasure to build thanks to the thoughtful planning of Tamiya's designers too.

Even if you are not a big fan of Japanese aircraft, you would be doing yourself a favour by sampling the sheer excellence of Tamiya's new 1:72 scale Mitsubishi A6M2b Zero.

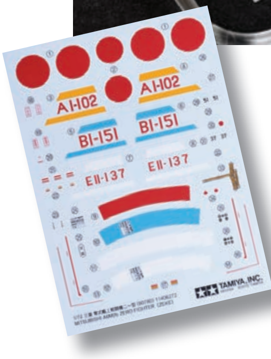
Thanks to Tamiya Japan for the sample www.tamiya.com

Tamiya kits are distributed in te UK by The Hobby Company Limited www.hobbyco.net •


Alternate parts are supplied for an open or closed canopy.

The one-piece engine cowl.

Fabric texture on the control surfaces is subtly rendered.

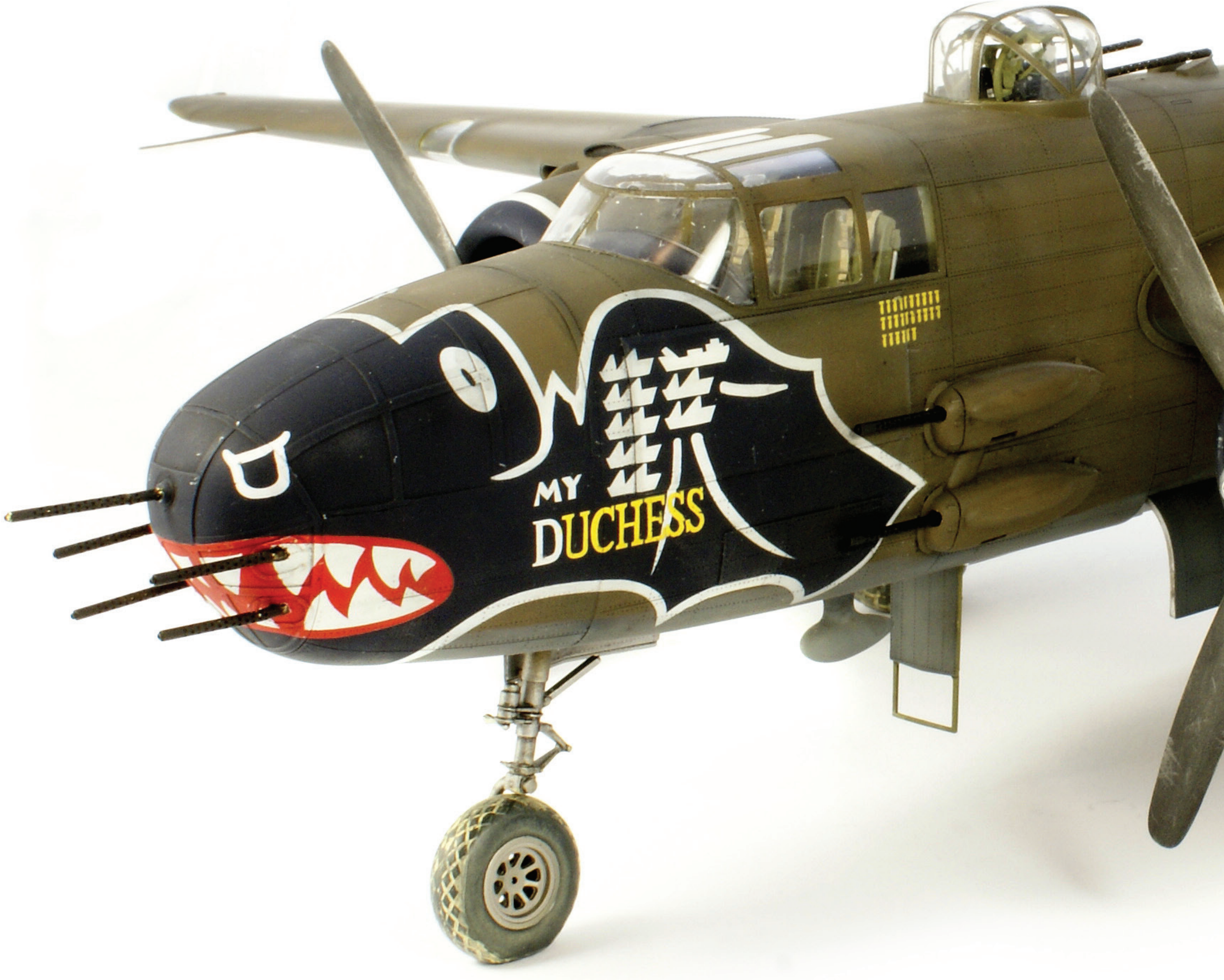


The kit decal sheet.

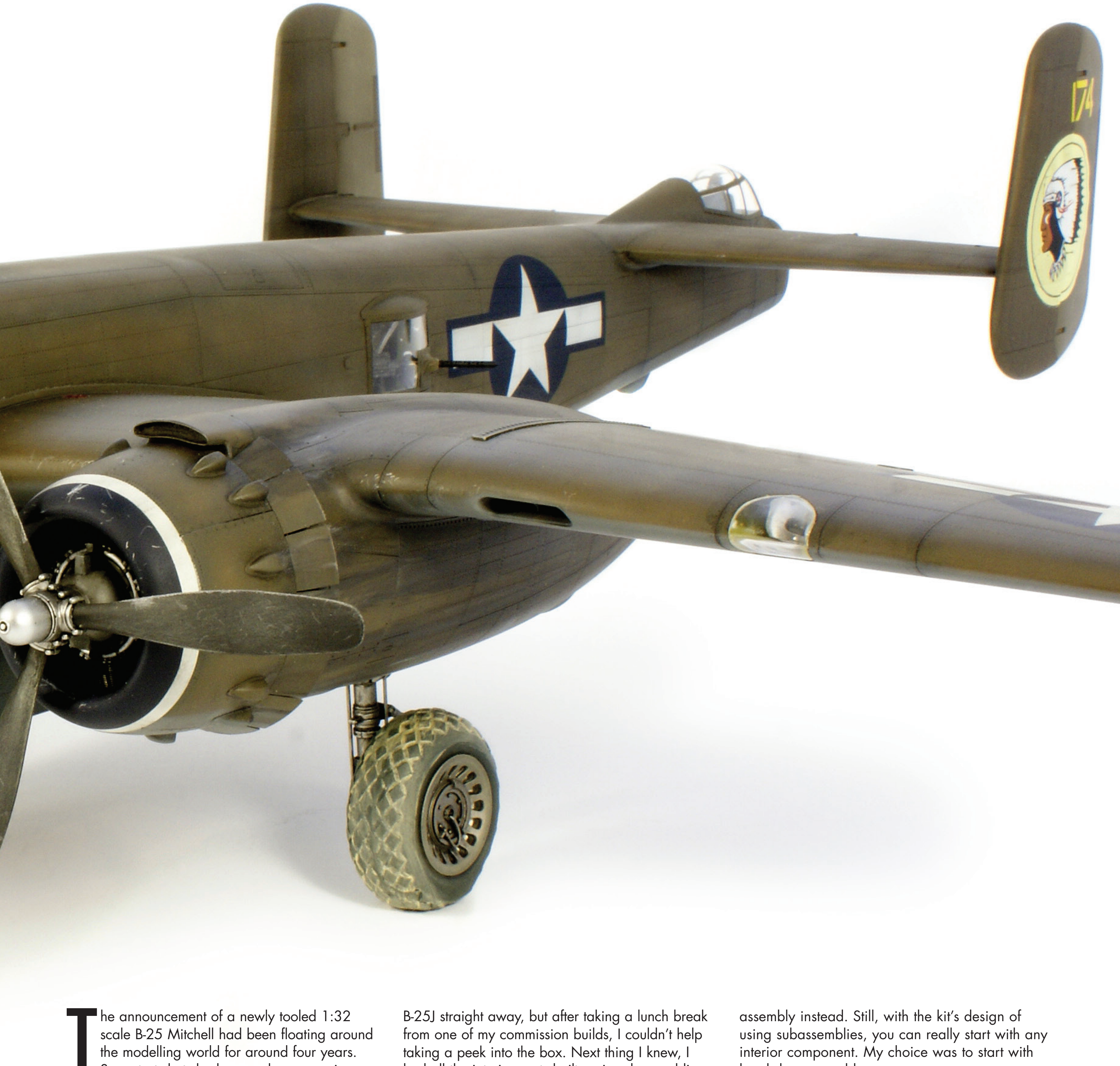
The engine – simple in breakdown but well detailed.

The perforations in the pilot's seat may easily and quickly be drilled out.

MY DUCHESS



Dave Johnson builds the long-awaited 1:32 B-25J Mitchell from HK Models, and adds his own custom paint scheme using self-adhesive masks.



The announcement of a newly tooled 1:32 scale B-25 Mitchell had been floating around the modelling world for around four years. Some test shots had popped up on various internet modelling sites for reviews, as well as a fully built sample for the Nurnberg Toy Show nearly two years ago, under another manufacturer's name. Fortunately, despite various reasons for delay, the newly tooled B-25 Mitchell has finally been released, but under a new manufacturer's name.

I was one of many modellers looking forward to seeing this bomber being released in a large-scale form, that was made famous by Jimmy Doolittle's Tokyo raid.

I was in the middle of building two commissions when a very large box arrived at my door. The size of the box was a dead giveaway as to what it contained! I had no plans start the HK Models B-25J straight away, but after taking a lunch break from one of my commission builds, I couldn't help taking a peek into the box. Next thing I knew, I had all the interior parts built up in subassemblies ready to be painted. Well, I just couldn't fight the urge not to continue.

STARTING OFF WITH A BANG!

Since the HK Models B-25J is a large kit, it has been thoughtfully designed to be built in workable subassemblies. This is my preferred method of working when I am constructing a model kit. This means you can work on a different assembly while the freshly applied paint or glue is drying on another assembly.

As most aircraft kits released these days get you to start in the cockpit, it was refreshing to see that you start off with the upper gun turret column assembly instead. Still, with the kit's design of using subassemblies, you can really start with any interior component. My choice was to start with bomb bay assembly.

I commenced by removing the 500lb bomb halves from the sprue, and each part was then cleaned up with a flat file removing the sprue attachment points before being glued and sanded with 1000 grit sandpaper. I wasn't too worried about getting a super smooth surface on the bomb, as the bomb casings would often be dirty and scratched from movement around the airfield and the outside conditions. The instructions have a paint callout for each bomb to be painted British Dark Green. Normally these bombs would feature a couple of yellow stripes around the nose and tail, but the instructions failed to call out these noticeable stripes. I did a quick check of the decal sheet to see ➤

if these stripes were included, but they weren't, so I had to add these details myself.

Each bomb was airbrushed with Mr Color C329 Yellow. Once dry, I then proceeded to mask off a tail stripe on each bomb using 2mm Kabuki masking tape. For the front stripe this method would prove to be a bit difficult due to the small area that needed to be masked. Instead I opted to make a masking disc using my CB Model Productions Punch Set. Using 12mm Tamiya tape, I punched out the inner diameter circle/disc out first. Then, using the largest size punch I had, I punched out the outer circle. This resulted in making a donut shaped masking disc. This was placed on the top of each of the bombs for the stripe on the nose. Prior to painting each bomb with Mr Color C304 Olive Drab, I pressed a single toothpick into one of the locating holes of each of the bombs to make handling a lot easier during spraying, and ensuring that I could paint each bomb fully in one session. Once dry, the masking tape was removed giving me the required stripes that feature on the 500lb Bombs.

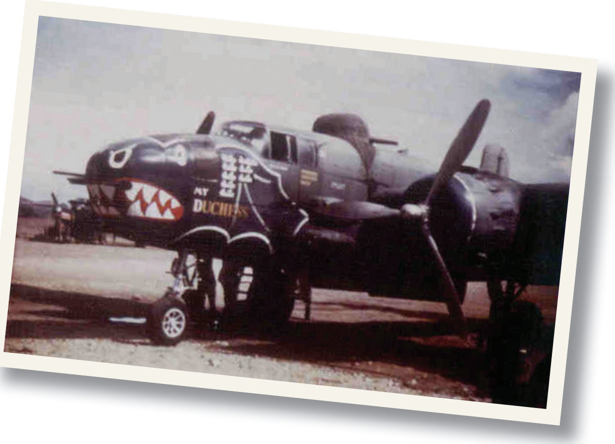
The bomb bay was assembled into two separate pieces comprising of a sidewall, front, roof, and the second piece was the other sidewall and rear. This is one of the first errors that I noticed in the paint callouts. HK Models would have you paint this area Interior Green, but in one of my reference books, it states that the bomb bays and the interior side of the bomb bay doors were supplied from the North American Aviation in 'Natural Metal', not Interior Green. This is the same case for the wheel wheels, firewalls and engine cowlings.

With this information, Mr Color Super Fine Silver which was thinned down using PPG Two Way thinners, my favourite thinner for Mr Color lacquerers. I airbrushed the Silver over the internal walls of the bomb bay. At the same time I planned to spray the inner parts of the bomb bay doors, but I noticed a few ejector pin marks that I failed to clean up on the outer door half (Parts M32&34). Luckily these pins marks would be covered after attaching the inner half of the door (Parts M31&32), so I proceeded to spray them.

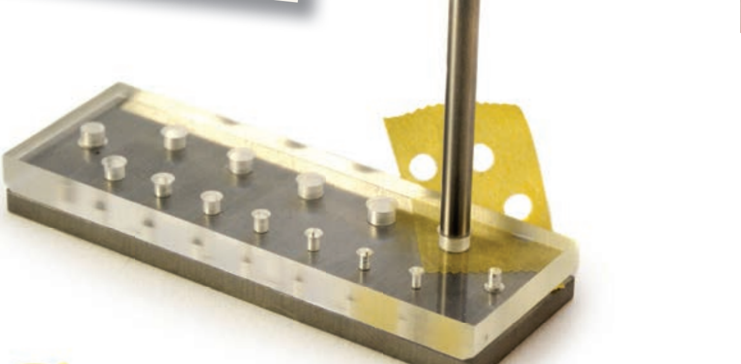
While the bomb bay parts were drying, I decided that I would do something different with the bombs. When I was searching for photos on the Internet for 500lb bombs as reference to help me to paint the stripes, I came across a photo from the famous B-25 Doolittle Raid where the 500lb bombs had some graffiti messages written on them. I thought this would be a neat addition. Using a white coloured pencil that I liberated from my sons art case, I wrote a couple of small messages on the bombs, "With More Bang!! and "Tojo Eats SPAM". This will surely liven up the dull bomb bay. To seal in the coloured pencil messages, each bomb was clear coated with Alclad II Klear Kote varnish. This is not my usual varnish that I like to use, but it just happened to be the only flat varnish that was in stock when I placed my order for some supplies from the store I shop at. This was the first time that I had used this product, and I was very impressed. I had to order all of the other different varnishes from the Alclad II range also.

The bombs were attached to sidewalls and each half of the bomb bay received a quick dark black/brown oil wash to tone down the shiny silver paint prior to the two bomb bay halves being glued together with Tamiya Extra Thin Clement.

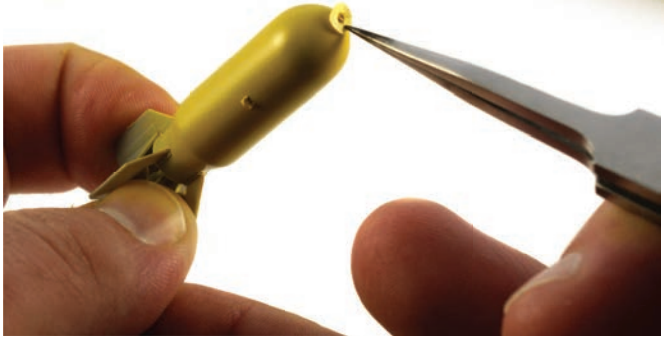
With the first interior subassembly complete, I turned my focus to the upper gun turret and tail gun assemblies. These comprised a small number of parts and took no time at all to glue together.



B-25J 'My Duchess' piloted by N. E. Wiley, 499th BS, 354th BG.

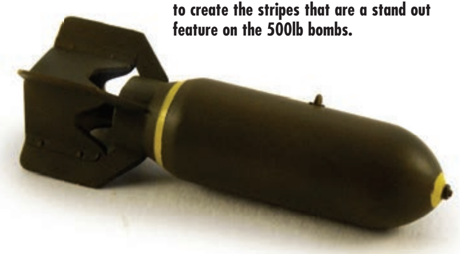


Masking tape donuts were created from 12mm Tamiya Tape to mask off the yellow stripes the front of the 500lb Bombs, which aren't included in the kit as decals.

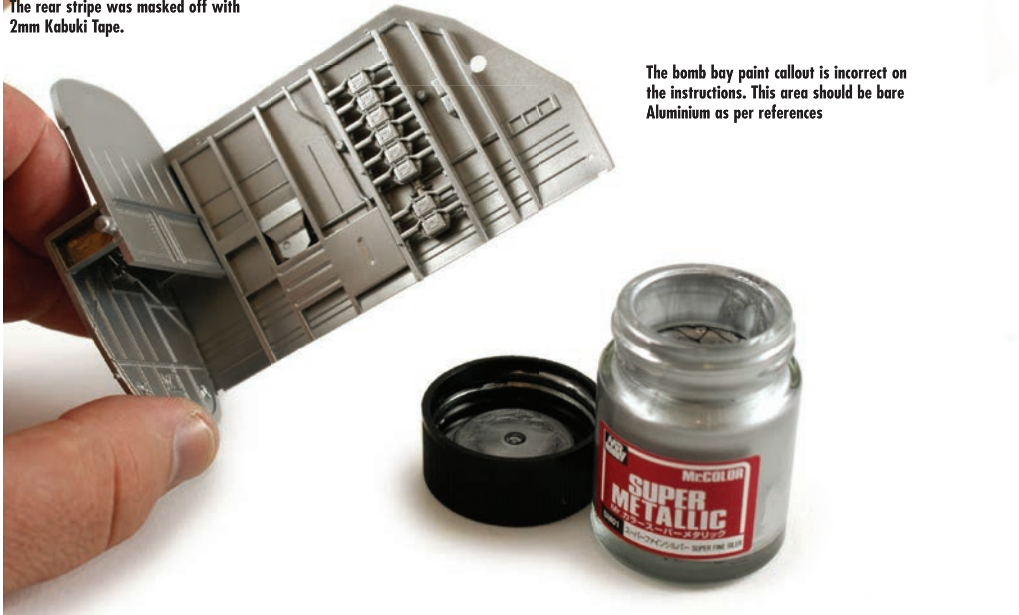


The masking donuts were applied to the nose of each bomb using a pair of fine pointed tweezers, due their small size.

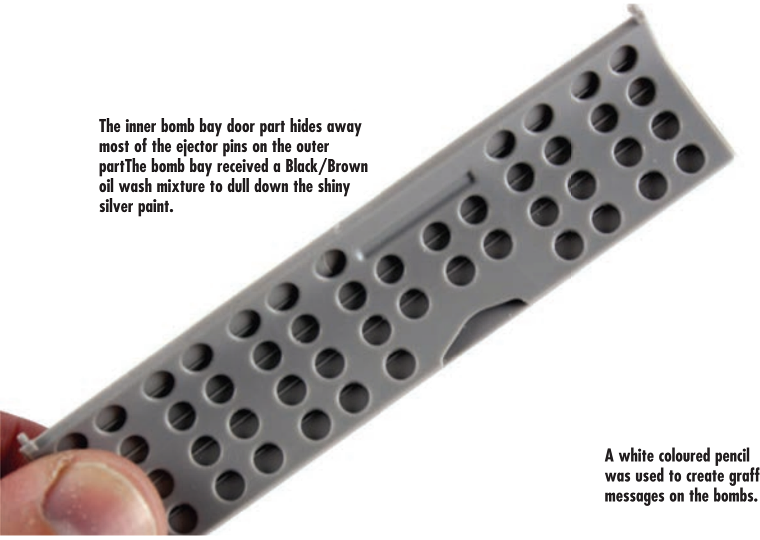
The rear stripe was masked off with 2mm Kabuki Tape.



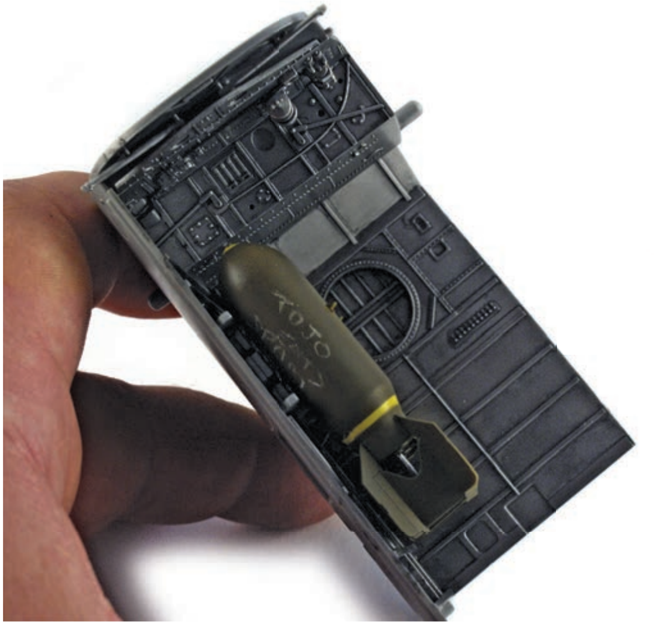
Mr Color Olive Drab was sprayed over the bomb and masking stripes were removed to create the stripes that are a stand out feature on the 500lb bombs.



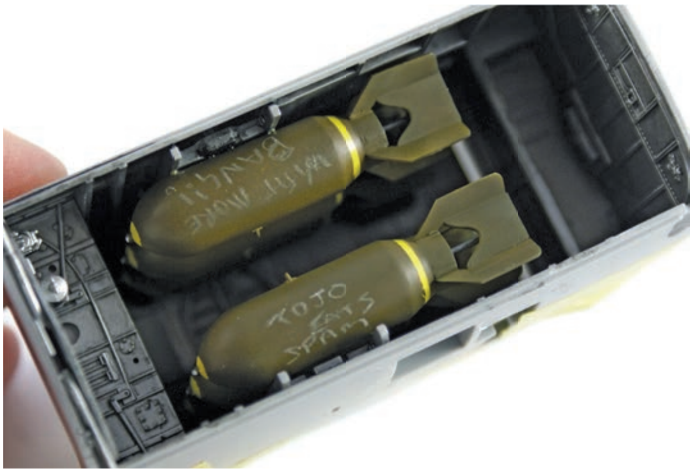
The bomb bay paint callout is incorrect on the instructions. This area should be bare Aluminium as per references



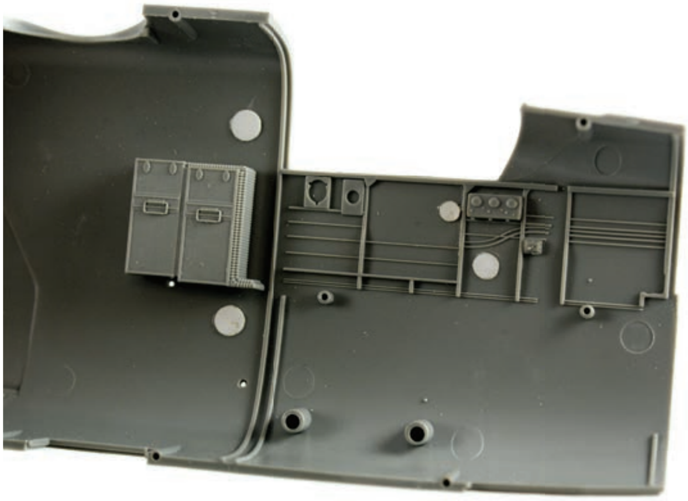
The inner bomb bay door part hides away most of the ejector pins on the outer partThe bomb bay received a Black/Brown oil wash mixture to dull down the shiny silver paint.



A white coloured pencil was used to create graffiti messages on the bombs.

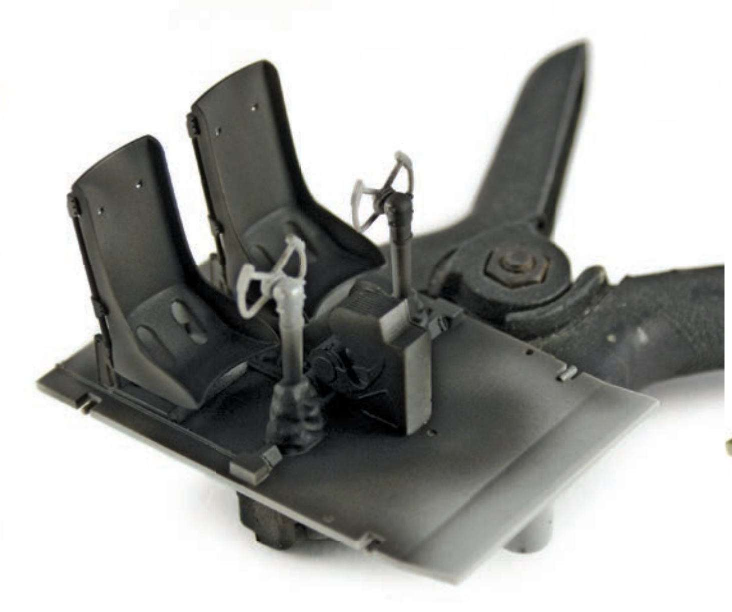


The bombs fitted to the bomb bay.

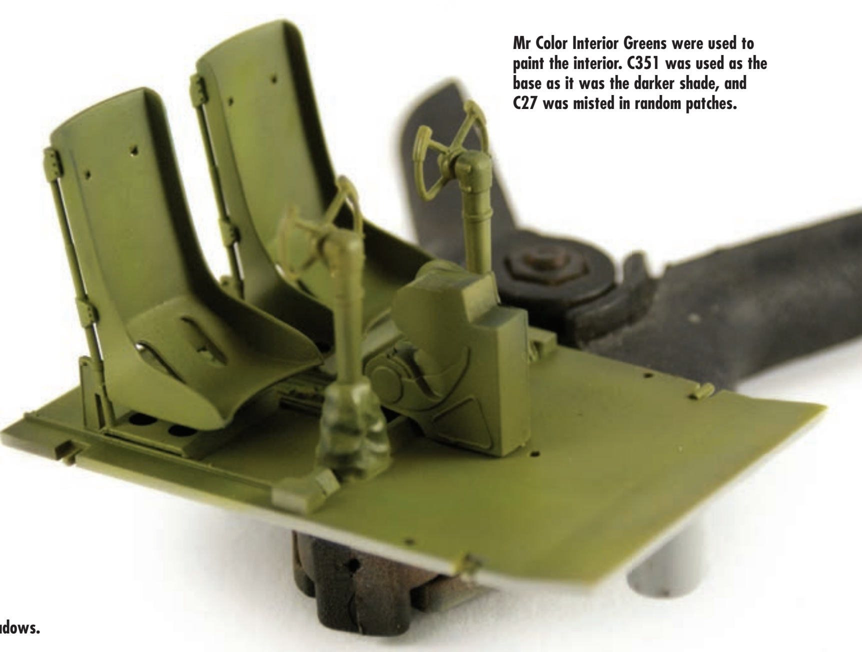


Plastic discs were punched out Evergreen sheet to fill the ejector pin marks in the fuselage halves, which were then sanded back flush with the surface.

> ***"I wouldn't want to be on the receiving end on one of these strafing runs with up to eleven .50 cals pouring hot lead down your throat."***



The interior areas were pre shaded with Flat Black to give the finished paint job some depth and shadows.



Mr Color Interior Greens were used to paint the interior. C351 was used as the base as it was the darker shade, and C27 was misted in random patches.

They were put aside to be painted at the same time as the cockpit and inner fuselage halves. The two Browning .50 cal's bodies in the tail gun were also left off to be painted separately as they would be attached prior to everything being sandwiched together. Now it was on to the final internal subassembly that needed to be built.

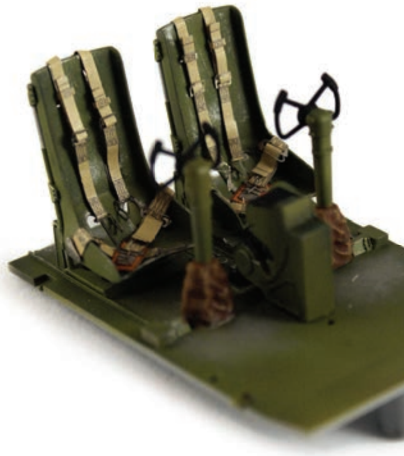
THE COCKPIT

I first turned my attention to the cockpit sidewalls on each fuselage, as each had four very large ejector pins marks that needed some fixing. These pin marks would be very visible through the canopy. My normal routine would be to apply Mr Surfacer 500 to each pin mark and allow it to dry, and then to refill the pin mark again until it was over-filled with Mr Surfacer. Then, each spot would be sanded until I was happy with the result... Instead, I thought I would try something new and grow my modelling skills some more. The other day when I was browsing one of the many online modelling forums, I noticed a modeller making Evergreen discs to fill the injector pins... I thought to myself, what a simple idea and why didn't I think of that sooner! So I proceed to raid my Evergreen sheet stocks and decided to use some .04 thick sheet, which should result in the disc protruding higher than the pin mark when the disc is glued into place. Then I encountered my first problem... the largest punch that I had in my CB Model Productions Punch Set was too small and the disc would fit inside of the diameter of the ejector pin... What was I going to use? Then it struck me! During my Automotive Mechanical training, we used to make our own paper/cork gaskets. One of the processes of making our own gaskets was to punch out bolt holes, and I had a larger punch set sitting in my tool box downstairs that hasn't been unused for some time. I dusted off the punch set and checked what size punches were included with the set... Perfect! It had the two correct sizes that I required for the pin marks. Using a scrap piece of 2x4 wood, I placed the sheet of Evergreen on top of the piece of wood, and lightly tapped the top of the punch with a hammer to create the required number of discs to fill each ejector pin mark. Each disc was glued in place with Tamiya Extra Thin Clement and received a coat of Mr Surfacer 500 over the top to ensure that there were no spots missed. Once dry, each disc was sanded flush with the sidewall of the cockpit. This new method was very simple and will become my new practice to tackle ejector pins marks, as it is quicker than the method I used to use.

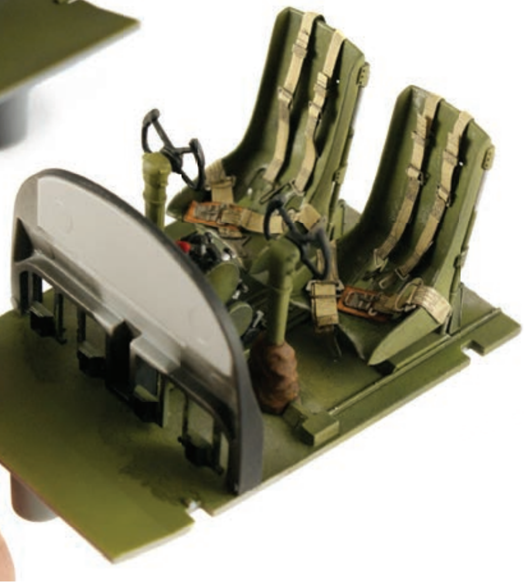
Most of the cockpit was then assembled that had to be painted Interior Green. This meant leaving off the instrument panel and the levers on the control column, as these were to be painted with different colours. With most of the interior assemblies built and the fuselage halves ready, I headed off to the spray booth. All of the Interior Green subassemblies were pre-shaded with Mr Color Flat Black, which will helped achieve some colour depth in the finished result. For the next step, I used my Tamiya HG-III airbrush and sprayed on Mr Color C351 Zinc Chromate Type 1, on all the interior components, at the same time being careful not to totally obliterate the black pre-shading that I had just done, but instead, just leaving a hint of it underneath in random areas and especially around framing and corners. Once this was dry enough to be handled, which is not very long thanks to one of the good advantages of using Mr Color lacquers based paints, I then used the lighter shade of Interior Green (Mr Hobby C27) and sprayed

MITHRIL SILVER
61-55
0.4 fl.oz
12 ml
AP

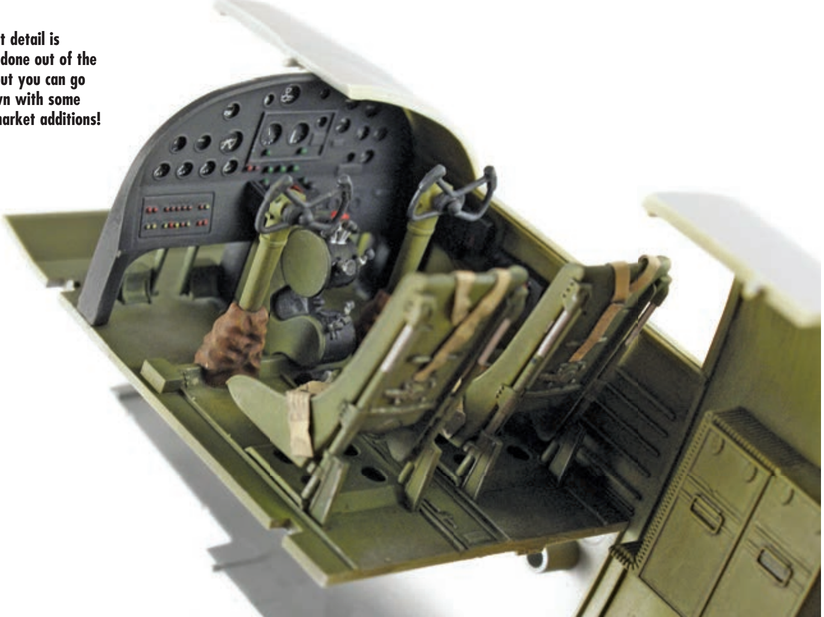
Mithril Silver from Citadel was dry brushed for high worn areas.



Eduard's USAF Harness set was used as replacement from the kits one piece photo etch Harness's.

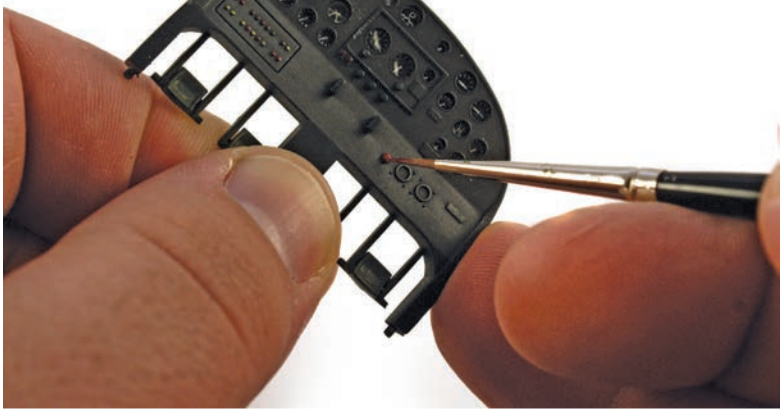


An oil wash was applied to the cockpit. This helps tone down all the different colours and blend in the dry brushed silver areas.



Cockpit detail is nicely done out of the box, but you can go to town with some aftermarket additions!

Tamiya's XF-63 German Grey was also dry brushed to tone back the Instrument Panel.



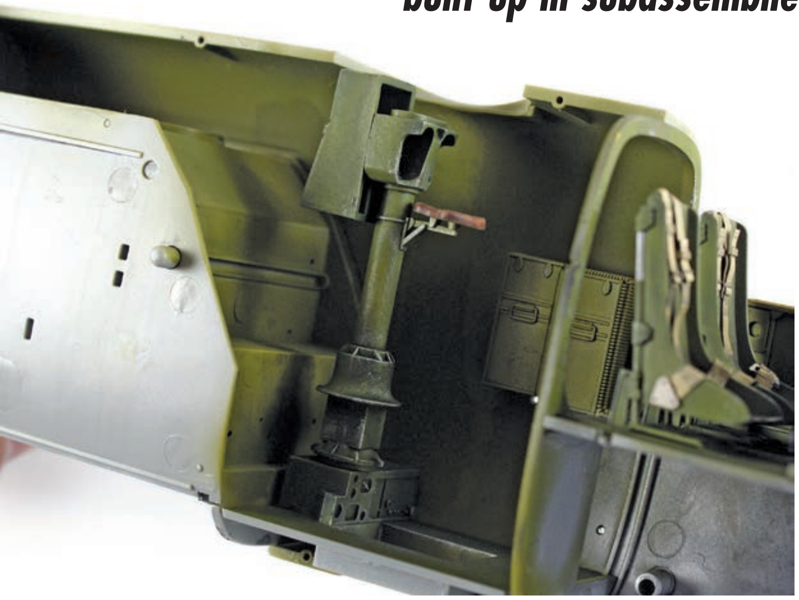
Tamiya Acrylic paints were used to pick out buttons and switches on the Instrument Panel.

Mr Color C27 Interior Green then was lightly sprayed in random patches to break up the solidness of the darker shade of Interior Green.

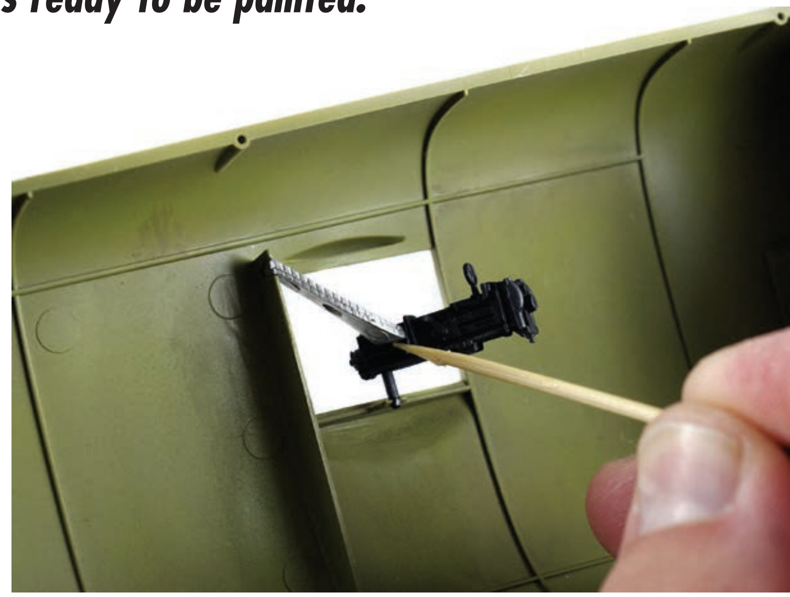
27
Mr.COLOR
351
Mr.COLOR
FOR AIRPLANES

A helpful tip... with the small amount of paint that is left in my airbrush after painting, I spray the tops of the paint bottles to aid in paint matching and identification.

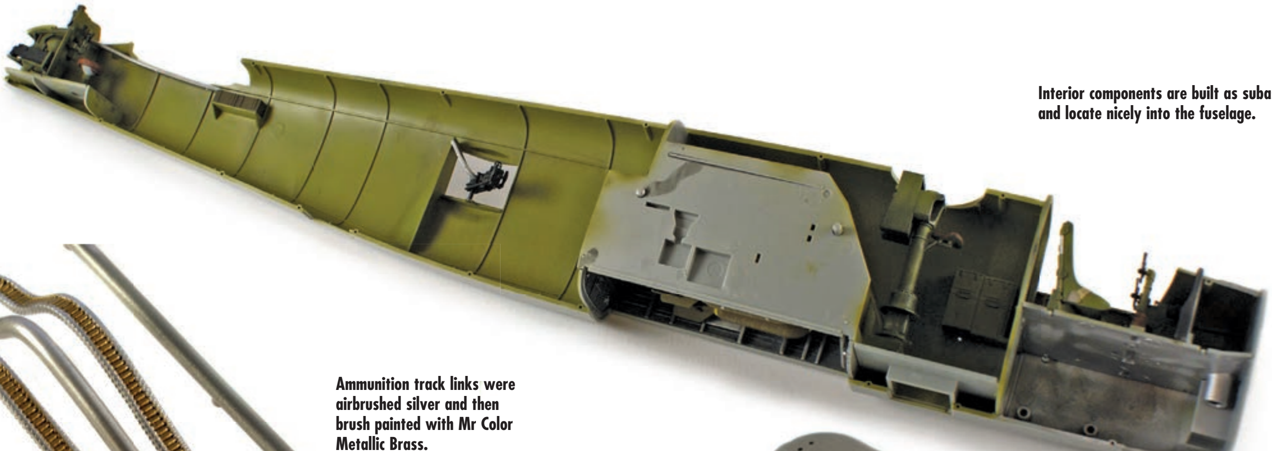
> ***"I had no plans start the HK Models B-25J straight away, but after taking a lunch break from one of my commission builds, I couldn't help taking a peak into the box. Next thing I knew, I had all the interior parts built up in subassemblies ready to be painted."***



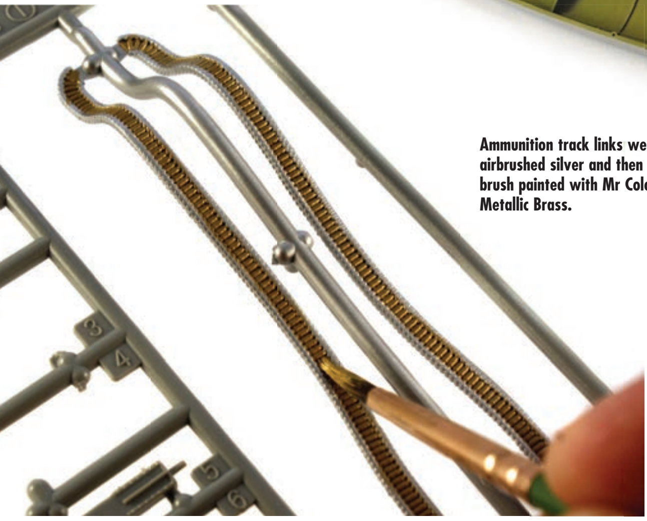
Most of the interior components will be hidden away once the fuselage halves are sealed.



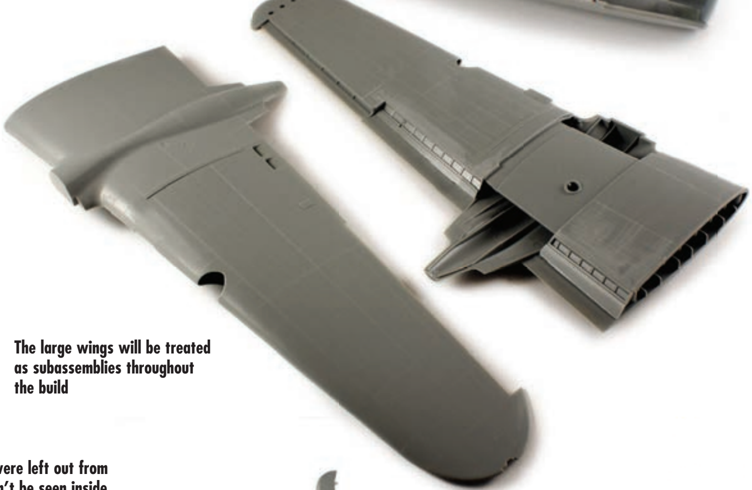
I couldn't get the waist guns to stay in place when gluing with plastic clement, so a dab of Super Glue bonded them instantly in place.



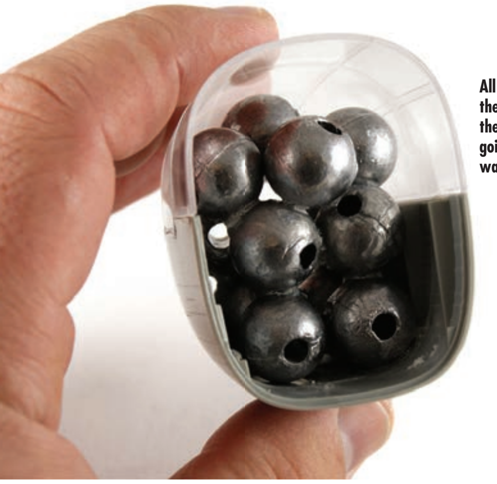
Interior components are built as subassemblies, and locate nicely into the fuselage.



Ammunition track links were airbrushed silver and then brush painted with Mr Color Metallic Brass.



The large wings will be treated as subassemblies throughout the build



All the interior components were left out from the nose interior as they won't be seen inside the painted nose. To make sure this wasn't going to be a tail sitter, 230 grams of weight was added... A bit of overkill!

How big is this thing? It barely fits in my light cube!

it in random spots in the middle of panels and components very lightly. This resulted in a nicely blended shade of interior green which gave life to the interior, instead of just one stark colour.

With this done, it was time to start picking out the details the cockpit. High wear areas like walkways and seats received a dry brushing of Mithril Silver from Citadel. The instrument panel was airbrushed with Semi Gloss Black and received a dry brushing of Tamiya's XF-63 German Grey to help to scale down the black colour. The dial faces are supplied as a decal and fitted nicely to the front of the panel insert at the rear of the Instrument Panel. Using a fine paint brush, Tamiya acrylic green, red and yellow paints were used to pick out the warning lights and switches on the instrument panel. The instrument panel then was finished off by applying some PVA/White glue to each dial face. Once the glue is dried on the face of the dial, it will give off a glossy finish and give the appearance of glass over each dial.

I wasn't too impressed with the photo etched harness that was supplied with the kit, so I opted to replace them with tan coloured belts from the Eduard USAF & USN harness set. Since Eduard only supply one tan and one green harness per etched sheet, I had to use two sets from my stockpile of harness. These multi-part harnesses look about 10-15 minutes each to assemble, but they may be positioned and draped to your requirements.

One of the final jobs to finish off the cockpit was to add the levers to the control column. These are one of the great additions to the kit and make the front office more lively. The levers for throttle, propeller pitch, engine mixtures and supercharger boost are moulded as one item, but with a fine spacing between them. I opted to slice the levers in half with a sharp scalpel blade, and trimmed off linking tabs. Each lever was then glued individually into their grooves on the control column. I did this to be able to dynamically place the levers in different positions, and also losing the plastic link between them, giving a more realistic look of the lever going down into the control column. Placement of each single lever was little bit tricky with the seats and control wheels glued in place, but with some fine pointed tweezers the task was manageable with some care involved. The reason I opted to do this last, was that knowing with my luck and my fat fingers, I would have most likely of knocked them out of place and lost them to hungry carpet monster that all modellers dread.

All the interior parts were then given an oil wash using Raw Sienna and Black oil paint that was thinned down to a watery mixture using Mineral Turpentine. Once the oil wash was semi dry, cotton buds were used to wipe off the excess wash leaving enough oil paint behind to highlight all the details. The last step prior to sandwiching all the internal parts between the fuselage halves was to paint and fit the tail and waist .50 cal's bodies. With the design of the .50 cals, the barrels have been moulded as separate parts that slot into the gun body at final stages of the build. Using these holes, toothpicks were inserted into them, and then they were sprayed with Mr Color Flat Black. Once dry, they were dry brushed with Tamiya XF-56 Metallic Grey. The ammunition belt feeds for the waist guns tail guns were airbrushed with Super Titanium from the Mr Color Super Metallic range and the ammo rounds were brush painted with Brass and finished off with a light black oil wash to pick out the details. While gluing the waist guns into position, the ammo feed belt keep popping off from the gun body as the plastic cement wasn't

Some sprue attachment points are on mating surfaces on the parts. These were carefully cut away with sprue cutters then a flat file was used to clean up the sprue attachment points.

The engine cowls were left on the sprue to ensure they stayed round while the cowl panels were glued into place.

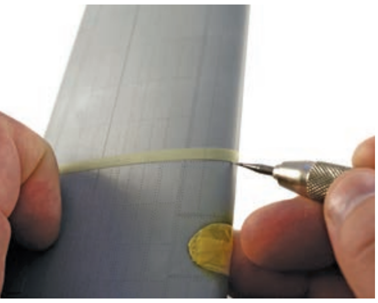
Packing foam was pushed into place to mask out the bomb bay for painting

The painted nose gear was masked off with a folded POST-IT note.

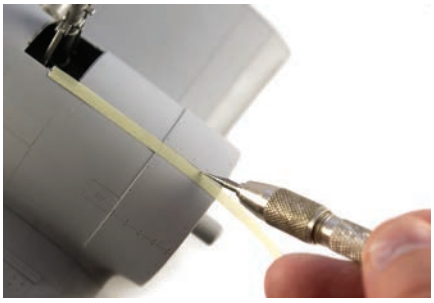
Due to the size of all the subassemblies, I had to break out the trigger airbrush!

Rivet lines were restored using a sharp pin mounted into a pin vice.

The scoop was blended into the wing using Tamiya Putty and Nail Polish remover on a cotton bud.



3M Vinyl tape was used as a guide to rescribe the lost panel lines.



Some of the seam lines are panel lines. You will need to check your references.

Large rivets were added using the MDC Rivet Tool.

For rivet lines that were completely lost from sanding, the Trumpeter rivet tool provided the correct spacing.

drying quickly enough to hold them in place. Using a dab of thin super glue on the tip of a toothpick, each belt was quickly fixed into position on the body of the .50 cal and the locating positions on the fuselage.

A FOOT LONG SUB!

Gluing the fuselages halves together was next task that I thought would cause problems. Gladly, I can say this went off without a hitch! All the internal subassemblies fitted into position and lined up perfectly when the two fuselage halves were dry fitted together. I proceeded to run Tamiya Extra Fine Cement down the seams in intervals of about 2 inches at a time, and allowing the clement to melt the mating surfaces prior to them being pushed together. At this point, I thought I would have issues due to the size and weight of the fuselage, but with a couple of pieces of 12mm Tamiya tape carefully applied, everything stayed in place beautifully. There were only a few of spots that required some filling and sanding. The only area that I didn't glue together on the fuselage was the front wheel bay. Unfortunately, the only major downside of this build was that you have to fit the nose landing gear so early in the build process. I am not a fan of this as I prefer to leave landing gears off until the last stages, as I tend to break them off when handing the model during building. The nose gear was painted, as per the kits paint callouts and then glued into place. I had to spread open the unglued area of fuselage to get the front gear located into position, and then it was glued along with the unglued seam on the front of the fuselage.

As I mentioned earlier, the kit has been smartly designed to be built in sub-assemblies, so I decided this would be the best option to take with the rest of the kit. The large wing halves lined up with ease and were glued together, along with the engine nacelles.

The tail section was quickly built up and attached to the fuselage with only a small amount of clean up due to of the attachment seams not corresponding with the panel lines. These lines were easily filled using Tamiya Basic Putty and 6mm Tamiya Tape to keep the putty located in the small area that was required, thus avoiding losing any detail. I opted to leave off the control surfaces off the tail and wings for the time being, as they were designed to slot into place without any requirement of glue. This would also help during the painting process as I wouldn't have to mask them off as I had planned to paint them a lighter shade due to them being covered with fabric on a real airframe.

With most of the assembly stages up to step 17 now complete, I took a huge jump to step 36 where the nose was to be built. For this scheme, the glass nose was painted over and you couldn't see anything inside. So with this, all the items within the nose were left out which provided me with a lot of space to add weight and less painting of the entire interior. After reading a few posts on a couple of online modelling forums from other modellers that were currently building this kit, there were mixed comments on the required weight to add to ensure this huge bird wasn't a tail sitter. The instructions state that 80 grams is required, but some posts were stating that they were adding up to 120 grams. Well with all this space, I went overboard

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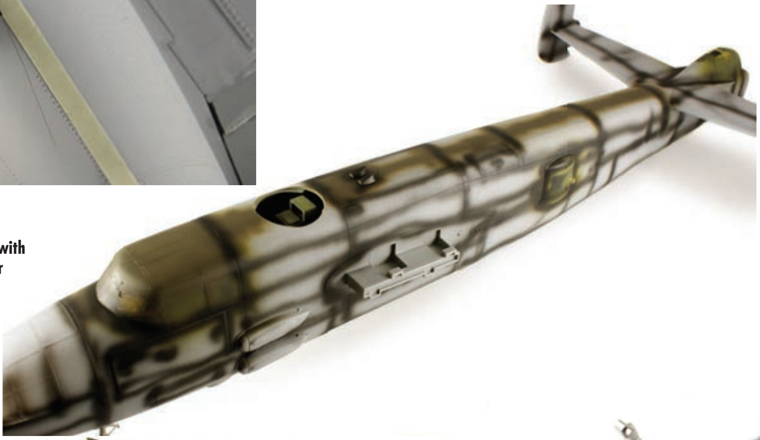
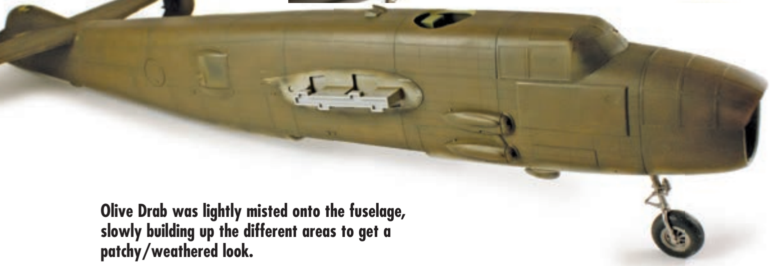
Super glue comes in handy to fill those spots when you slip with the scriber.

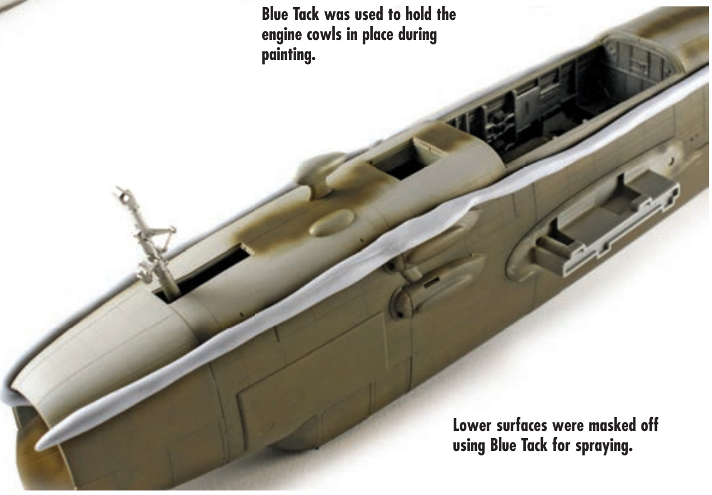


Panel lines were pre shaded with Flat Black paint and the upper seams were rechecked with spraying Olive Drab.

Blue Tack was used to hold the engine cowls in place during painting.

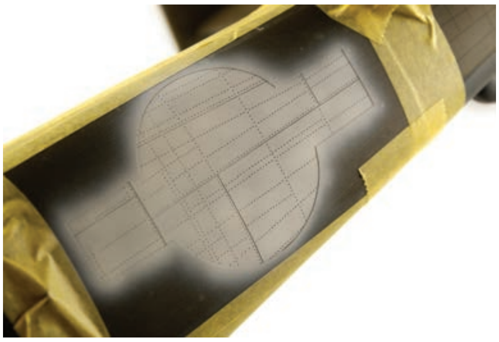


Olive Drab was lightly misted onto the fuselage, slowly building up the different areas to get a patchy/weathered look.



Lower surfaces were masked off using Blue Tack for spraying.

The paint mask for the fuselage was lined up using the vertical row of rivets to ensure it was kept straight. With paint masks you need to make sure that the edges are stuck down firmly.



Prior to spraying the white for the insignia, the outside of the paint masked was masked off with Tamiya Tape to prevent overspray.

A large piece of mask film was used to remove all the masks to ensure they stayed in place.

and added 230 grams, using fishing weights! Yep… this bird isn't going to be a tail sitter for sure! After adding all this weight to the nose section, it occurred to me that gluing the nose to the fuselage may cause a small problem with it falling off while the glue is trying to set. To combat this, Tamiya Extra Thin Cement was run over the mating surfaces and then pressed together. Four pieces of 12mm Tamiya were applied to the side, top and bottom which held everything in place while the glue was left to set. To ensure that the glue was fully cured, the tape wasn't removed until 24 hours later.

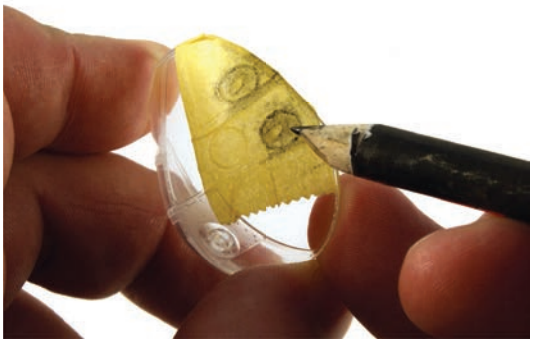
While the glue was drying on the fuselage and nose, I turned my attention to the engine cowls, as this was another point that was brought up on some Forum postings. Some modellers were stating that some of the cowl panels were ill-fitting and wouldn't line up nicely. The instructions would prefer to have you build up the engines and then attach them to the cowl framing, before adding the exhaust pipes and cowl covers. I dry fitted one of the engines into the cowl and thought that alignment of the pipes could be a factor that might cause this problem. My approach would be to glue the panels into place first and then add the engine and exhaust pipes later on. I left the engine framing on the circular sprue and attached the front cowl ring to the framing prior to gluing down each panel. This was for two reasons. Firstly, a larger area to make it easier during handling, and second was to ensure the cowl would stay circular if a small amount of pressure was applied during handling. Each panel was then removed and cleaned up using a flat file. Then each cowl panel was then applied as per the instructions parts callouts in the step, working in anti-clockwise movement. Most of the panels lined perfectly, but I did have a couple of corners that stuck up slightly higher than the others. These higher points were just simply sanded down using 1000 grit sandpaper, and then polished with an old piece of 2000 grit once I happy with the offending area.

At this point I took the opportunity to prime everything with my favourite Mr Surfacer mixture. To produce this mixture I thin down Mr Surfacer 1200 with Two Way thinners to around a 30/70 mixture. Due the amount of airbrushing that was about to take place, I broke out my Tamiya HG Trigger airbrush and replaced the standard paint cup with the larger plastic cup and filled it to the top with the primer mixture. I ensured that my airbrush compressor ran for a few minutes prior, as there was going to be a lot of spraying going to happen! During spraying I had to stop a couple times to allow the tank to refill as it is only a small double piston compressor. This wasn't a huge problem as it allowed me to take a quick break whilst I was waiting. After the primer was dried, I gave all the surfaces a quick rub down with 2000 grit wet and dry sandpaper. Doing this gave me all the high/low spots that needed some attention. These spots were attended with Tamiya Basic Putty and were filed flush and smoothed off using 800 – 1500 grit sandpaper. Unfortunately along the fuselage seam lines some of the rivet and panel lines were lost, but some of the rivets were still partly visible. The rivets were restored by using a sharpened pin in a pin vice which was pressed down on the partly lost rivet. I did this quite a few times, maybe around 100+, but the process went very quickly and was quite relaxing! Prior to heading back to the spray booth, all the clear parts

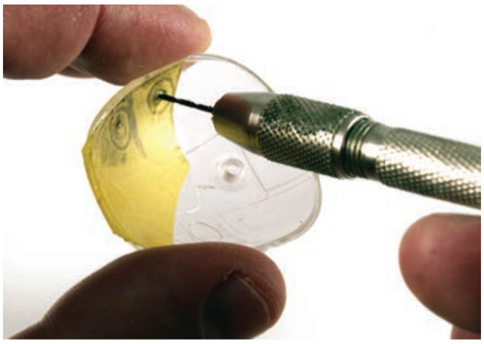
Whoops… misaligned mask corrected and resprayed.

Bright colours that required to be painted on top of the Olive Drab received an undercoat of white paint.

The yellow bomb markers only require a light coat of yellow due to the white undercoat.



A pencil rubbing was made onto a piece of Tamiya Tape of the .50 Cal frames on the nose to be copied onto the other side.



Then these were drilled out for the extra two .50 cals that I required for my modified gunship scheme.

The port side air scoop location point was filled in, as the scoop doesn't appear on my reference photo.

The inner mask has been applied and the ship killer markers had to blocked out as they were out of shape due to the large mask.

were attached into their places with Tamiya Extra Thin cement. The clear parts were masked off using a Profimodeller canopy mask set. I had mixed results with this set, as some masks were either too large or undersized in areas. The larger masks were simply trimmed back just by running a sharp scalpel blade over the offending areas, and the excess masking film was removed using a pair of fine point tweezers. For spots that were too short, 6mm Tamiya Tape and 2 and 3mm Kabuki tape were used to fill in these areas. Once the masking was competed, all the framing on the clear parts received a blast with Interior Green as the internal framing will be visible through the large windows on the completed model.

After the top and bottom fuselage seams were cleaned up, they were re-checked by spraying the camouflage colours of my chosen scheme over them, proving that they didn't require any more work. Here, I proceeded to pre-shade all of the panel lines and hatches with flat black paint prior to spraying the Olive Drab and Natural Grey of the camouflage colours of my chosen scheme. When pre-shading the panel lines, I am not too worried about keeping them straight or tidy if they run past the detail that I am spraying over. I find having un-uniformed lines will provide the airframe some character when spraying the covering colours.

RESEARCHING & PAINTING

During the early stages of my build, I always spend a little time researching my subject and looking for an interesting or different scheme. While doing my research, I started to look at photos of ship raiders in the Pacific Theatre. These early B-25J gunships would have their glass noses modified in the field to carry extra .50 cals to provide maximum firepower for skip bombing attack missions against enemy ship convoys or ships at port. During these attack runs, they would normally turn the top turret to face forward, so they would have maximum firepower raining down on the ship during their approach run. I wouldn't want to be on the receiving end on one of these strafing runs with up to eleven .50 cals pouring hot lead down your throat.

I wanted to do an early paint scheme of Olive Drab over Neural Grey, so this naturally turned my attention to the 345th Bombardment Group that were based in the Southwest Pacific. They were also known as the Air Apaches. The 345th had four squadrons under their group command. These were 498th BS (Falcons), 499th (Bats Outa Hell), 500th (Rough Raiders) and the 501st (Black Panthers). Two of these Squadrons jumped out to me straight way, 498th and 499th. This was due to the squadron nose art that both squadrons carried. The Falcons carried a green bird head with a yellow beak over the nose area, and the 499th Bats Outa Hell carried a huge blue Bat. Instantly I ruled out a 498th Falcon scheme as there is one that I want to do when the B-25J Strafer version is released (yes I am crazy… I am going to build two 1:32 scale B-25's!). So 499th Bats Outa Hell would be the way I would go. I was thinking of Sag's Harbour Express, but soon as I learnt that Eli from Zotz Decals was to release a sheet with this scheme, I ruled this one out. I do like schemes that are not normally offered commercially. Next on my list was My Duchess. A B-25J-11-NA, serial 43-36174 piloted by N. E. Wiley. This B-25 fitted all my criteria…cool nose art with the huge Bat

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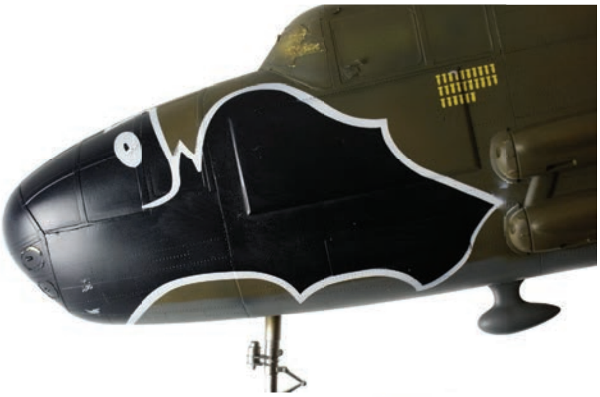
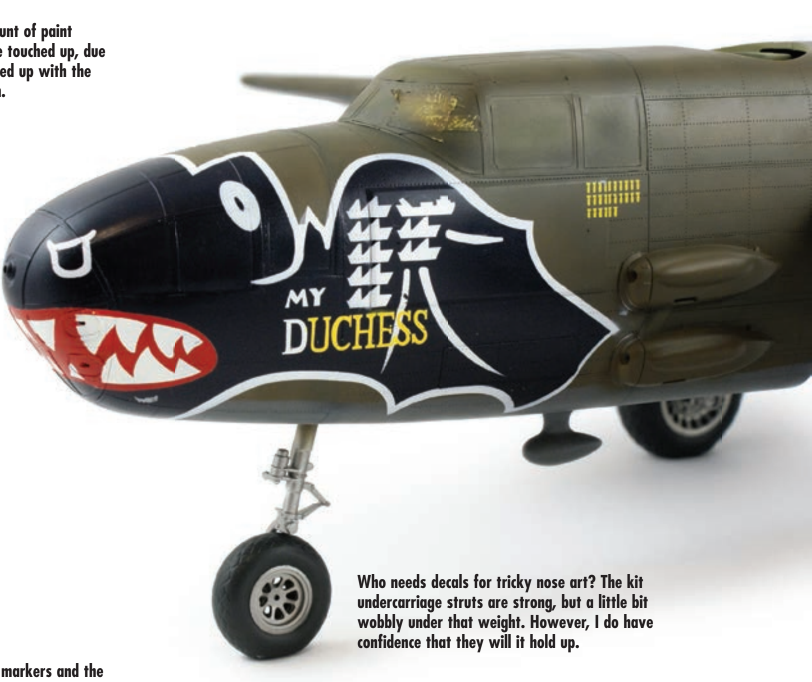
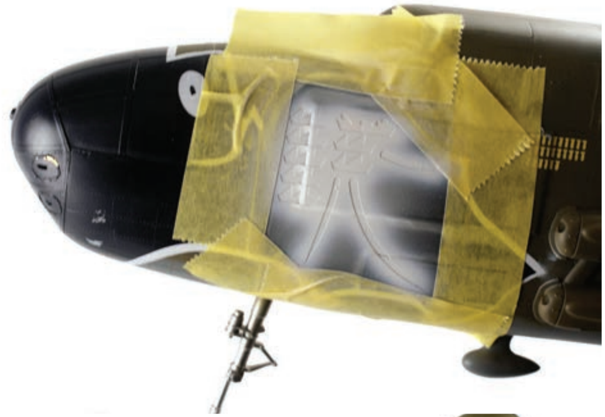


A small amount of paint needed to be touched up, due to being pulled up with the masking film.

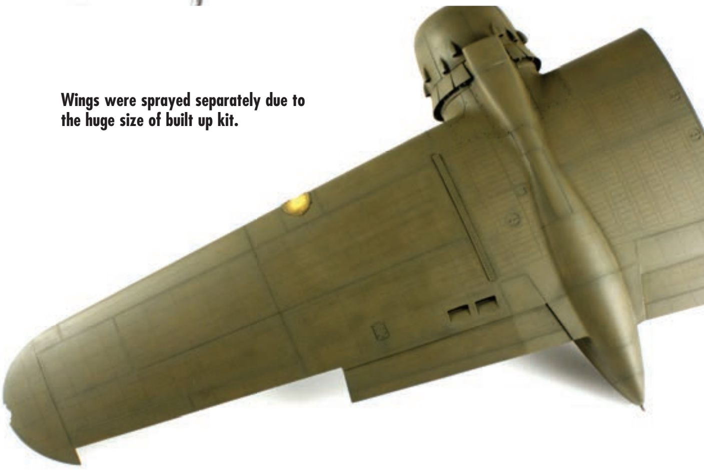


Who needs decals for tricky nose art? The kit undercarriage struts are strong, but a little bit wobbly under that weight. However, I do have confidence that they will it hold up.

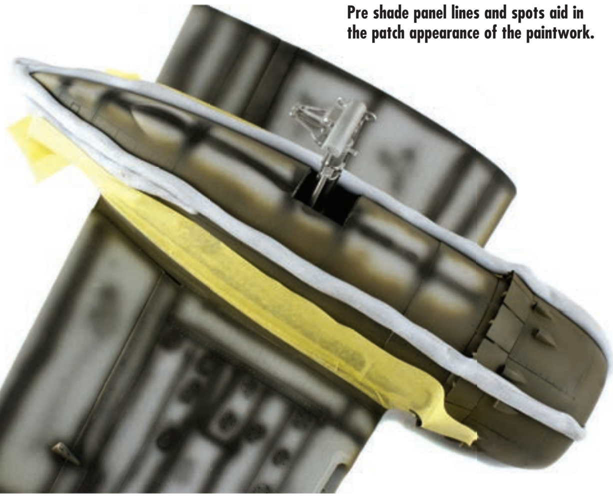


The ship kill markers and the wing detail were cut from a second mask set and applied separately.

Wings were sprayed separately due to the huge size of built up kit.



Pre shade panel lines and spots aid in the patch appearance of the paintwork.



splashed across the nose and lots of kill markers. Unfortunately, I couldn't find out much information on this B-25… The serial wasn't listed on Joe Baughers' website (http://www.joebaugher.com/) and the only photo that I found was a very grainy one from an Internet search.

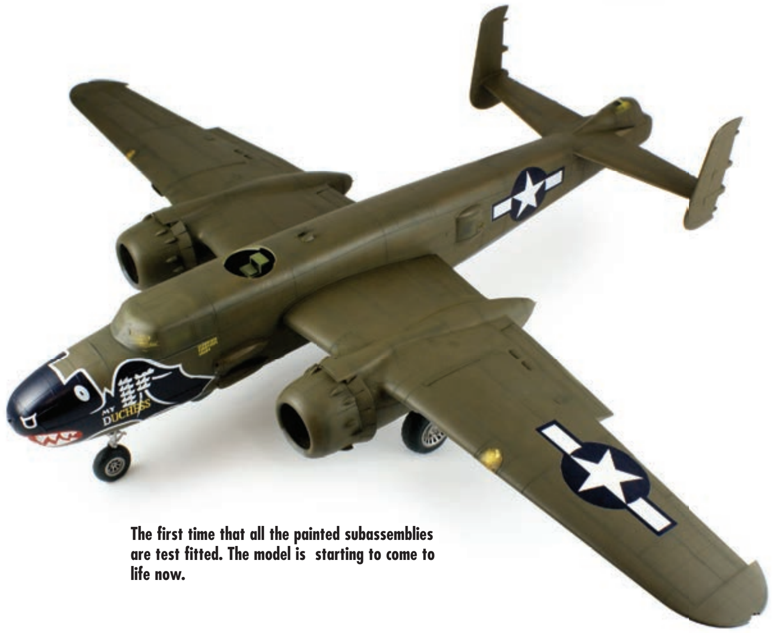
I also managed to find an old 1:48 scale decal sheet from Pro Modeller on EBay that included My Duchess as one of the marking options. With all the info that I could gather for markings, I contacted Joe at Scale Precision Paint Masks (http://www.scaleprecision.com/) and arranged for a set of custom masks to made up for this project. Joe was a little concerned about the huge bat on the nose as he didn't have the kit to measure it himself, but he was confident that I would be able to make the mask set work.

While I was waiting the mask set to arrive from the United States, I dove straight into painting. Again working with each of the subassemblies that had already been pre-shaded, I started to spray Mr Color Olive Drab to the Upper Surfaces. I wanted to make this airframe look used and slightly battered due the harsh sunny and dusty conditions that it would have seen in the Pacific. To achieve the patchy paintwork, I lightly misted on the Olive Drab working on a panel at time and building up darker patches in random areas. With areas I wasn't totally happy with, I just revisited the area repeating the same process. Once the upper surfaces were complete, naturally I moved onto the Neutral Grey lower surfaces. To mask off the lower surfaces from the Olive Drab, Blue Tack sausages were rolled out longer than fuselage and were tacked into place in a wavy line. Normally I would place some masking tape on the outer side of the Blue Tak to protect the painted upper surfaces, but due to the size, it would require a lot of tape. Instead, I carefully rolled the fuselage in my hand during spraying, making sure that no over spray will land on either side of the Olive Drab fuselage. The same misting method of the paint was used on the lower surfaces, and again repeated with the wings. With having the paint masks arrive, I was very eager to get onto of my favourite parts of building… spraying the markings!

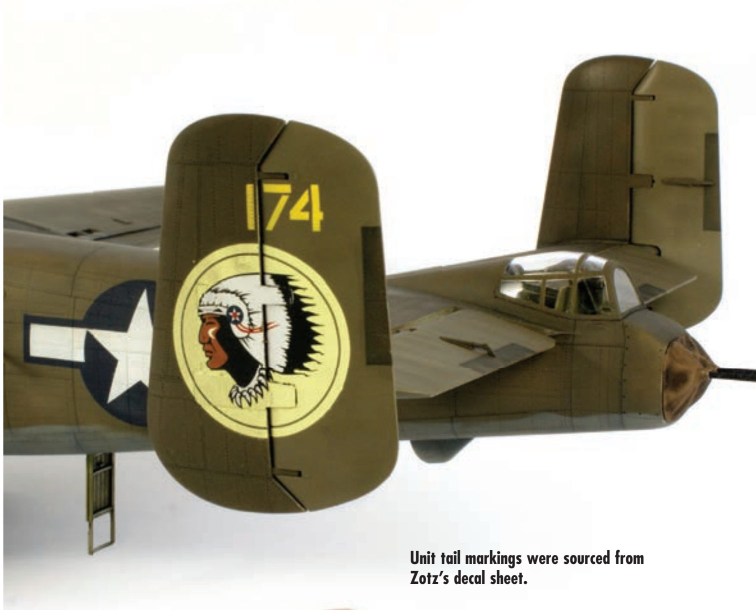
BAT OR HELL?

Turnaround time for the mask set from Joe at Scale Precision was pretty quick. Upon opening the envelope that contained the mask set, there was a small note from Joe saying that he included an extra set. He did this just in case something went pear-shaped, as the mask for the bat is quite complex and could easily go to hell on me, literally.

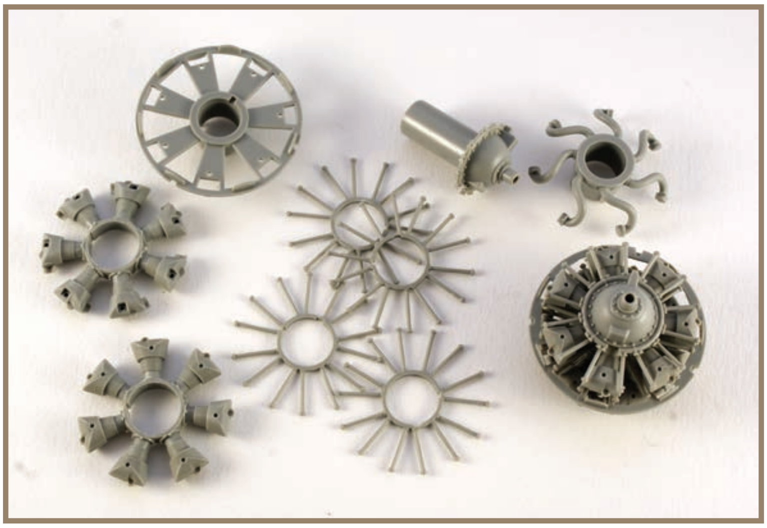
Eager to get some markings on the Mitchell, I started off by applying the outline mask for the National Markings to the fuselage and wing surfaces. Each mask was rubbed down with a little bit of pressure using my index finger, to ensure that mask was fully adhered to the surface. This was done to make sure that no paint would go underneath the masked area when spraying, and the outline of the painted area would be nice and tight when the mask was removed. This was quickly blasted with Flat White so the area was fully covered but patchy, to keep it within that worn airframe look. The next step is to apply the inner masks over the white area. Using a large section of masking film that wasn't required, I placed the film over the top of the mask that I want to remove from the backing paper. By doing this, it keeps the mask in place and prevents it going out of shape when you are trying to place it. It also makes it easier for handling and placement of the mask. The Insignia Blue areas of the mask were removed whilst the mask was being lifted. The tip of a scalpel blade aided this task, and the mask was placed over the white painted area. Mr Color C326 Blue FS515044, was then sprayed to complete the national markings, once



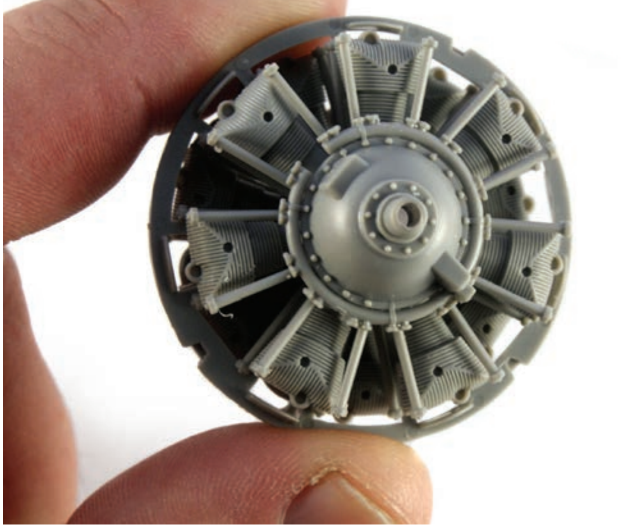
The first time that all the painted subassemblies are test fitted. The model is starting to come to life now.



Unit tail markings were sourced from Zotz's decal sheet.



The kit engine sub-assemblies.



The basic engine assembled.

the masks were removed.

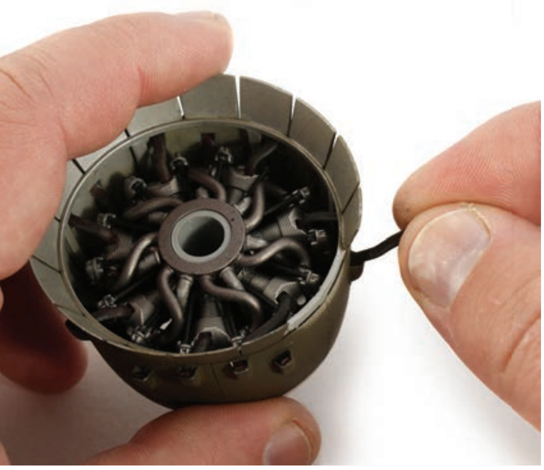
With the Stars and Bars now applied, the Mitchell was now starting to come to life.

Prior to tackling the huge bat on the nose, the mission and tail numbers were applied. These details were sprayed with an undercoat of flat white to provide maximum opacity for the yellow over the olive drab upper surfaces.

With all the markings applied, it was now time to attempt the stand out feature of this B-25, the huge blue bat on the nose.

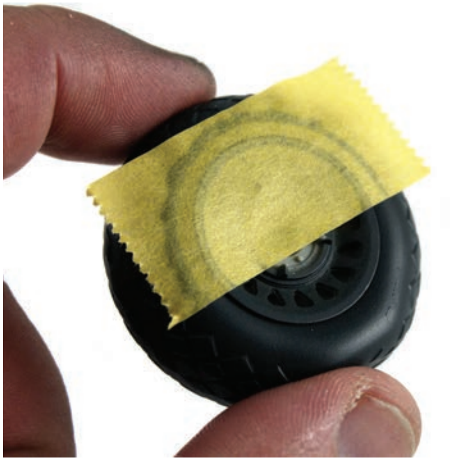
The outline of the bat was split down the middle and was provided in two masks. Each half of the mask was lined up on the nose using the lower curved outline of the canopy. Only the starboard side gave me a small amount of grief, as it wouldn't line up on the lower surface. Fortunately this was easily sorted as the masking film is thin enough to manipulate into place. Tamiya Tape was then applied to the edges of the mask to prevent any over spray messing up my paint job. Mr Color C326 Blue was used again to spray the bat onto the masked area on the nose. Once dry, the inner mask was applied. This provides the white outline of the bat, the ship kill markers and wing detail of the bat. Unfortunately the mask on the port side that included the ship kill markers crinkled and air bubbled up on me even after all my efforts to prevent this. To sort the crinkled areas, I made slits with a scalpel blade around the kill markers and pushed out most of the crinkles and air bubbles. In doing this, all the kill markers were out of shape. I opted to block out this area off with Tamiya Tape and sprayed the white on the unmasked areas. With the spare mask set, I cut out the kill markers and applied them as a separate mask that was then sprayed with Flat White. With Mr Color Lacquers, I have no issues with spraying white over a dark base colour, even when the paint has been heavily thinned.

With most of the bat now complete, the mouth outline was applied by spraying the white. The teeth masks were applied, and the rest of the area was painted red, finishing off the bat's mouth to complete the huge bat nose art. When removing the masks throughout each masking stage, a tiny amount of the paint pulled up with the mask. This was expected when working with such a large area. These areas were touched up by using a small pointed brush with the required colour. The final touch to the markings was the requirement of the two Indian heads insignias for the Air Apaches, as these weren't cut as paint masks. My only option for these markings was to purchase the Zotz Decal sheet, Mitchells at War, Part 1. The decals stuck down very well over the Semi Gloss finish, with a few drops Mircosol over the decal to get them to snuggle around all the rivet details. Most of the paint that was sprayed was in lacquer semi gloss finish. Normally I would apply an oil wash directly over this for weathering, but since there some areas that were sprayed with a flat paint (mostly the white) and decals that were applied on to the tails, I gave the whole model a quick coat of Mr Color Clear to aid the flow of the oil wash. I made a huge mixture of wash using Burnt Umber, Raw Umber and a couple drops of Black oil paint, which was thinned Mineral Turpentine to a watery mixture. The wash mixture was brushed on all the surfaces using a large wide brush and was left dry for about 30 minutes. After that time, most of the oil wash was dry on the surface but still wet to touch. A large paper towel was used to wipe down all the surface areas. This resulted in removing most of the oil paint residue, but leaving behind the residue in the panel line and rivet details. Cotton buds were also used to get into the hard to reach places. The surfaces were wiped down in the direction of the airflow, so if there was any residue or staining left ➤

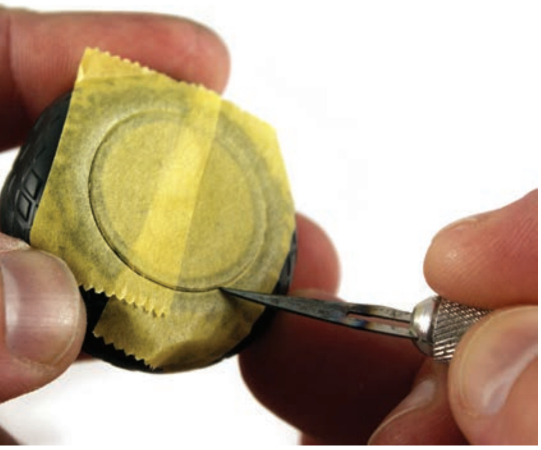


Diverting from the kit instructions, each exhaust pipe was slotted into place by using the openings on the cowl.

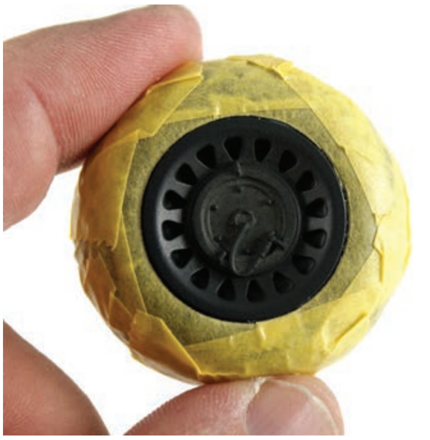
The kit propeller blades have a funny paddle shape to them. These were replaced with AMS Resins replacement prop set.



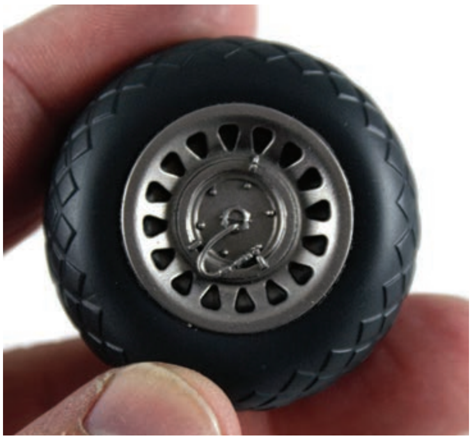
Tyres were painted Tire Black and then masked off with 12mm Masking Tape.



A sharp blade was run around the outside of the hub to cut the tape away.



The tape then was removed to expose the wheel hub for painting.



The hubs were sprayed with Mr Color Super Fine Silver.

behind it would look natural.

Once I was happy with the finished result of the oil wash, all the subassemblies were put aside to dry for 48 hours for the oil residue to fully dry before handing again for the final clear coat to seal everything in.

Being impressed the Alclad II Klear Kote when I first started, I opted to finish that way too. I loaded up my Tamiya trigger airbrush once again for the large spraying job that was ahead of me. All three large assemblies were sprayed for the final time… Hopefully! Drying time of the Klear Kote, was sped up using a hairdryer, so everything could handled and attached together earlier than the expected drying time. The attachment points for the wings to the fuselage have been smartly designed as interlocking gates that just slot together and don't require any glue. This is a great idea for braking down of the completed model for transport or storage.

ENGINES

With the project moving towards its natural conclusion, there were only couple of things to tackle to complete it, and one of the items was the power plant… well two items, to be more accurate!

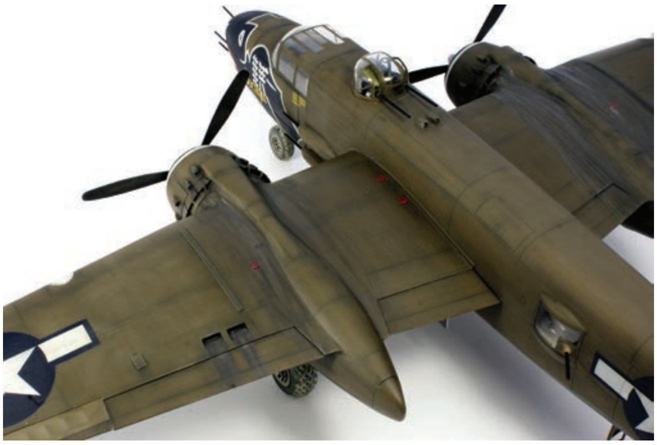
The two Wright R-2600 engine parts were removed from the sprues, cleaned up and test fitted. The two rows of cylinders and push rods slip neatly over a locating tube that is moulded on the rear of the engine cover which holds everything into place. One of the minor flaws with the kit is in this are The engine cover unfortunately has an incorrectly shaped profile and is missing the governor. The governor is a stand out item on top of the engine cover and could been easily produced in plastic. Luckily, Harold from AMS Resin has come to the rescue after many requests from we modellers. He has produced a correction set that replaces the incorrectly shaped engine cover, propellers and provides the missing governor. Harold's replacement set is only available directly from Sprue Brothers (www.spruebrothers.com), and from the first day the set was released, they have been very hot items to get a hold of, instantly selling out when new stock is added onto Sprue Brothers web store. I missed out a few times unfortunately! Luckily Harold happened to see my plea for a set on one of the online forums and shipped me a set directly! Thanks Harold, much appreciated!

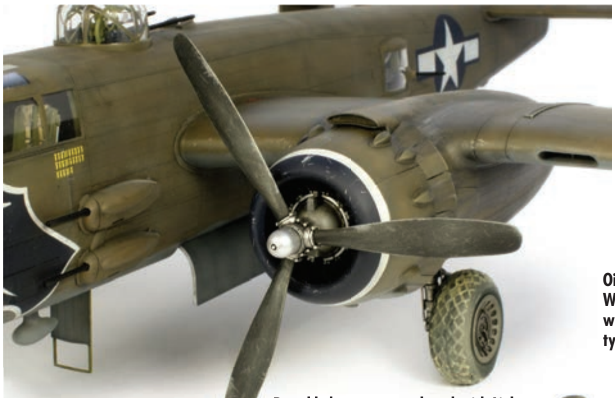
While waiting for the AMS correction set to arrive, I got to work on the engines. The cylinders were sprayed with Mr Color SM05 Super Titanium, push rods in Semi Gloss Black. The exhaust pipes were sprayed with Mr Color C29 Hull Red, and then were weathered using the Soot and Dust shades in the Tamiya Weathering Master sets. These were applied by dusting on the different shades with the brushes supplied with the sets and sealed with a coat of Flat Klear. Now I had to make a hard call. I had been waiting for a while for the AMS set to arrive, and I needed to finish engines off so I could attach the cowls and be on the final stages to finish off the Mitchell. Should I fit the kit's engine covers or wait longer and be under pressure to get the Mitchell completed before my imposed deadline? Well, I stewed over it for a couple of hours, and bit the bullet and went with the kits covers. With all the engine parts now painted, I slotted all the components together and attached all the rocker covers to the top of the push rods.

After completing one bank of rocker covers on both engines, I found that I had them on the wrong way and had to be removed and reattached. Even seasoned modellers make mistakes. It always pays to double-check the instructions!

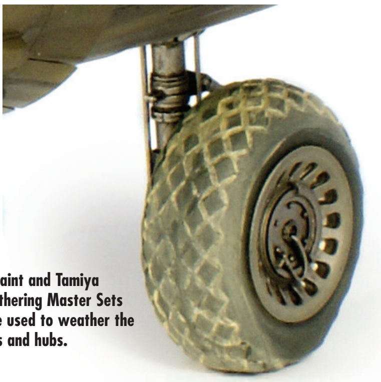
Ignition harnesses are include as plastic parts, but after attaching them to the first bank of cylinders, they didn't look right as I thought they were a tad over scale. Using a pin vice, holes were drilled into each cylinder and using Black 0.6mm soft metal wire from Tuner Model Manufactory, the plastic ignition harness were replaced with the soft metal wire that was slotted into the holes. A black oil wash was applied to both engines to

Exhaust stains were created by streaking Tamiya Weathering Master Soot and Snow with a few drops of water.

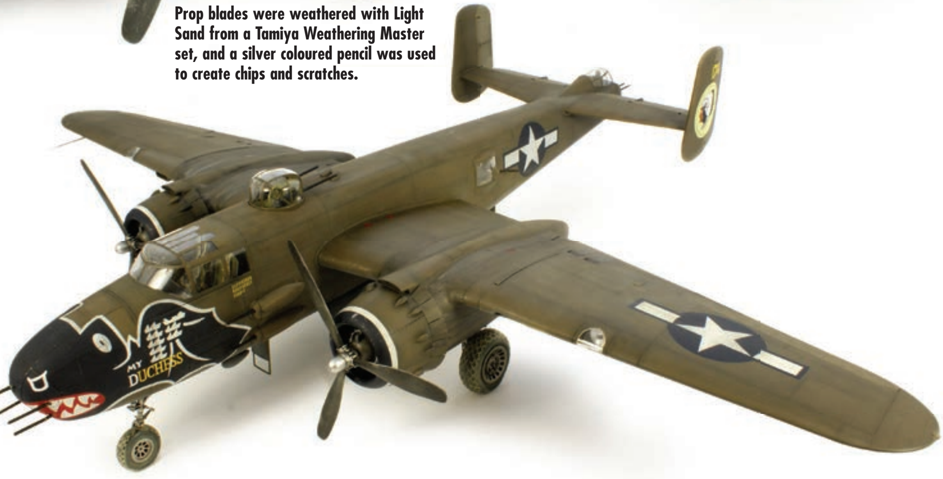




Prop blades were weathered with Light Sand from a Tamiya Weathering Master set, and a silver coloured pencil was used to create chips and scratches.



Oil paint and Tamiya Weathering Master Sets were used to weather the tyres and hubs.



MODELSPEC

HK Models 1:32 B-25J Mitchell. Kit No. 01E01

Accessories Used :

Eduard - USAF & USN Seat belts (32506),

ProfiModeller - B-25J gun barrels set modification B (32081), Browning .50cal Barrel x2(32085), Canopy Masks

Scale Precision Masks – Custom Made Paint Masks

Zotz Decals – B-25J Mitchell at War Part 1 (32054)

Tools and Materials Used:

Tamiya Extra Fine Cement

Tamiya Basic Putty

Tuner Model Manufactory 0.6mm Black Soft Metal Wire

Fishing Weights

Hot Stuff Super T Super Glue

Super Glue Accelerator

Tamiya HG-III Airbrush

Tamiya HG Trigger Airbrush

1, 2 & 3mm Kabuki Fine Line Tape

6 & 12mm Tamiya Tape

CB Model Productions Punch Set

Blue Tak

Nail Polish Remover

Paint and Finishing Products Used:

Mr Color Lacquers - C8 Silver, C12 Olive Drab (1), C13 Neutral Gray, C22 Dark Earth, C27 Interior Green, C29 Hull Red, C33 Flat Black, C46 Gloss Clear, C62 Flat White, C92 Semi Gloss Black, C137 Tire Black, C181 Semi Gloss Clear, C304 Olive Drab FS34087, C326 Blue FS515044, C327 Red FS11136, C329 Yellow FS13538, C351 Zinc Chromate Type 1 FS34151,

Mr Hobby Super Metallic Paint Range - SM01 Super Fine Silver, SM05 Super Titanium.2

Tamiya Acrylic Paints – X-5 Green, X-7 Red, XF-3 Yellow, XF-56 Metallic Grey, XF-63 German Grey

Citadel – Mithril Silver

Marie's Oil Paint – 687 Burnt Umber, 688 Raw Umber, 793 Black

Alclad II - ALC314 Klear Kote Flat

Faber Castell Silver Pencil

PPG Two Way Thinners

Mineral Turpentine

References Used:

AJ-Press - #078. North American B-25 Mitchell Pt. 1

AJ-Press - #079. North American B-25 Mitchell Pt. 2

AJ-Press - #082. North American B-25 Mitchell Pt. 3

Squadron #1034. B-25 Mitchell in Action

Squadron #5512 North American B-25 Mitchell

make the all the engine detail standout. This made the air cooling fins pop out from the silver painted cylinders. I also added a few spots with a brown oil wash to the engine covers for appearance of oil leaks and stains.

With both engines now complete, I attached the cowls. Now I had to figure the best way to attach the exhaust pipes as I skipped this stage earlier in the build. I couldn't just attach the pipes on to the rear of the engine, as the cowl plates that I fitted earlier would interfere with the fit. I decided to thin down the plastic around the cowl exhaust openings by using a scalpel blade and cut away the plastic. After this task was completed on all the openings on both engine cowls, each pipe was lightly pushed down into place through each hole and then were glued to secure them into place. Having both the engines and cowls now completed, they were attached to the rest of the model. And with my luck… The AMS correction set now arrives! Oh well at least I can still use the prop blades.

FINAL TOUCHES AND WEATHERING

Being on the home straight now, there were only a few minor things to do - glue the bomb bay doors on, add the top turret, attach the wheels, add the barrels to the .50 cal's bodies and add the final weathering touches that needed to be done. I decided straight away to replace the plastic barrels with an aftermarket items. Normally I would order Master Model barrels in for my requirements, but I saw that ProfiModeller also did barrels, when I was ordering the canopy mask set. They offer their barrels as complete replacement set in two different options and even individual barrels could be purchased too. This would suit me perfectly as I would require an extra two barrels for the field converted gun nose. I opted for the Set B from ProfiModeller, as Set A has the Flash/Muzzle suppressors on the four barrels for the fuselage gun packs where Set B doesn't. Each barrel consists of two parts, the barrel and the cooling jacket. These parts were glued together using CA/Super Glue and then they were sprayed with Mr Color Flat Black. Once the barrels were dry they were fitted into place. Some of the barrels simply pushed into place and didn't require any glue to hold them. The barrels that didn't fit required the locating holes to be enlarged slightly. This was done using a larger diameter drill bit in a pin vice.

The propeller blades that are supplied with the kit are shaped a little funny and are little bit wide in chord. These could be very easily filed and sanded into the correct shape with some reference photos. But if you're like me, sometimes the price of aftermarket upgrade/correction is cheaper than your time and effort. This was the case for me with this subject. The corrected propellers are finely cast and bubble free, with a small amount of material that needs to be removed around the locating tabs, which is easily done with a sharp blade. To prep the blades prior to a coat of paint, they were sanded smooth with some 1500 grit sandpaper and then polished with 2000 grit and then blasted with Mr Color Flat Black. No yellow tips were painted on the blades, as they don't appear to be on blades in the only reference photo that I have.

The propeller hub was sprayed with SM01 Super Fine Silver and weathered with a black oil wash, prior to each blade being attached to it with CA/ Super Glue. The propellers are then simply pushed into the location pins on the engine, allowing them to be moveable in the future if they need to be repositioned or removed for travelling.

The wheels were actually assembled quite early in the build. This was done, so I could test fit everything together and see how everything would stand up on the plastic struts. The main wheels are moulded with inserts to capture the inner hub detail that do look the part, but there have been some questions raised about the hub detail and the tread pattern, which has an unrealistically stepped appearance on the tyre. I am sure that some of the aftermarket companies will be onto this and be releasing something onto the market soon. The inner inserts were glued into each wheel half, and then Tamiya Extra Thin Cement was brushed onto the mating surfaces of each half and were left for a few minutes to allow the cement to react with the plastic. The halves were then mated together and lightly squeezed together, so the melted plastic ooze out between the seam line. Once the plastic ooze was dry, a scalpel blade was used to criss-cross where the tread met the dried ooze. This was cut away and the remaining seams were clean up using sandpaper. This process was repeated for the nose wheel, and then all three wheels were sprayed with Mr Color C137 Tire Black.

To mask off the tyres from the hubs for painting, two widths of 12mm Tamiya Tape were stuck over the hubs. Using the tip of my fingernail, it was ran around the outside of the hub to press the tape snug around the hub. Using the tip of my scalpel blade, it was run the outside of the hub. The tape over the hub was removed, revealing the hub that was now sprayed Mr Color C8 Silver. The finished wheels were then super-glued into place. With everything now complete, the real test is seeing if the weight of the plastic undercarriage would hold up this large and heavy kit. I am confident that it will, but it is a tad wobbly due to the flexibility in the plastic. I guess time will only tell. For the next one I plan to build, I would likely get a metal replacement that is available from G Factor or Scale Aircraft Conversions.

Now with everything complete, it was time to add the final touches to the weathering.

Normally, in the past I would use Tamiya Weathering Master sets and pigments to create exhaust stains along the upper wings and nacelles, but for some reason I tried to airbrush Tamiya Acrylic for them. Well that turned out to be a complete disaster on the first few passes with the airbrush. I wasn't happy with the results, so I tried to remove the paint with some isopropyl alcohol. This did remove most of the paint, but in the end I had to repaint the nacelle and upper wing to be 100% happy with it. This surely teaches me not to differ from my normal route!

Now with everything back to how it was, I used Soot and White from the Tamiya Weathering Master sets to create the exhaust stains. A medium soft brush was dipped into water and then was brushed along a paper towel to remove small amount of the excess water on the brush. The wet brush was then worked in to the colour shade to create paste. The brush was placed at tip of the exhaust pipe then streaked along the surfaces making sure that it was getting lighter towards the end of the streak. This was repeated with each exhaust pipe.

Using the brush that is supplied in the Tamiya Weathering sets, I lightly dusted the sand shade over the wings and the fuselage to give the aircraft a dusty appearance as if it had been sitting out in the elements.

The propellers were also toned back by dusting light sand from the Tamiya sets. Chip and scratches were added to the fuselage, leading edges of the wings and propellers by using a silver coloured pencil.

Weathering the tyres was done by using a combination of both methods mentioned previously. The tyre's sidewalls were dusted over with the brush and the treaded areas had the wet paste brushed over it.

Once dry, a damp cloth was wiped over the raised tread areas to remove the dried paste. •

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SS10228 - B-24 Liberator in Action (Soft cover)
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B-24 Liberator
David Doyle
In Action
Squadron/Signal

The B-24 Liberator, produced by four different firms, in five different plants, was built in greater quantities than any other WWII bomber. Operated by the U.S. Army Air Force, and U.S. Navy on all fronts during the Second World War, and supplied to the British Commonwealth nations, the 18,482 Liberators took the war to the Axis doorstep. Lavishly illustrated with almost 250 authentic wartime photos, including over 80 in vintage color, with supplemental drawings and color profiles, this 88-page totally new edition of this classic In Action title brings to life no less than 20 variants these famed aircraft, as well as their crews. Experimental versions, classic bombers, freighters, tankers, reconnaissance birds – even the rare gunship version – are shown.

SS25071 - B-25 Mitchell Walk Around (Soft cover)
SS65071 - B-25 Mitchell Walk Around (Hard cover)

B-25 Mitchell
David Doyle
Walk Around
Squadron/Signal

Soaring into the pages of history with Jimmy Doolittle's famed Tokyo Raiders, the North American B-25 Mitchell was the most-produced American medium bomber of World War II. Profusely illustrated with 200 stunning color photographs, this 80-page volume examines the nuances of the external features and explores the inner workings of the B-25D model, the scarce hard-hitting, cannon-armed B-25H, and also the most abundantly-produced Mitchell, the B-25J. Enhancing the color photographs, taken both on the ground and in the air, four vintage black-and-white images and 14 line drawings further illustrate details, while five color renderings of aircraft and markings provide a glimpse at the nature of the crews.
Illustrated with over 200 photographs. 80 pages.

SS25070 - Heinkel He 111 Walk Around (Soft cover)
SS65070 - Heinkel He 111 Walk Around (Hard cover)

Heinkel He 111
Ron Mackay
Walk Around
Squadron/Signal

The Heinkel 111 saw service on all Germany's military fronts in the European Theater of World War II. The He 111 entered the war as a medium bomber, supporting Wehrmacht ground campaigns. After the tide in the conflict had turned against the Reich, and air superiority had been achieved by the Soviet Union and the Western Allies, the Heinkel 111 was largely relegated to transport functions. This iconic warplane had its origins as a cutting-edge civil airliner in the mid-1930s. But war was looming and before long it was adapted for use as a bomber. The first mass-produced versions, the He 111-E and He 111-F, served in the Condor Legion with Francisco Franco's Nationalist forces in the Spanish Civil War, paving the way to further military engagement once World War II broke out. Although produced in large numbers and exported to many countries before and during the war, few examples of the He 111 survive today. This walk around features detailed photographic images of the He 111-P1 restored and preserved in Norway, and the He 111-H20 on display in the RAF museum in Britain.
Illustrated with 228 photographs, detailed line drawings, and color profiles. 88 pages.

SS36003 - OH-6 AEROSCOUT COMBAT CHRONICLES (Soft cover)
SS76003 - OH-6 AEROSCOUT COMBAT CHRONICLES (Hard cover)

Aeroscouts in Vietnam
Wayne Mutza
Combat Chronicles
Squadron/Signal

During the late 1950s and early 1960s, U.S. Army planners sought to increase the Army's helicopter force. The Army developed new tactical doctrine using helicopters - the airmobile concept - which was based largely on air cavalry units. Such units were descendants of the US Cavalry, which had operated as light, horse-mounted infantry. Air cavalry troopers were, in essence, horse soldiers, and helicopters were their steed. True to their proud and colorful heritage, the Air Cavalry not only employed tactics used by their forefathers of the Indian wars, they embraced their culture as they deployed in the grueling conflict in Indochina. Packed with more than 30 action packed, often hair raising first-hand accounts of helicopter scout combat in Vietnam, this latest addition takes you into the thick of the action. Besides being exciting reading, these personal recollections by dozens of the fighters themselves provide invaluable, primary source historical coverage of one of America's epic conflicts as experienced by frontline helicopter scouts. Illustrated with over 160 photographs; 136 pages.

ALSO FROM ADH BOOKS...

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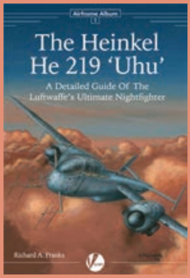
by Richard A. Franks



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A FULCRUM BUILT FOR TWO

Kamil Feliks Sztarbala builds and adds yet more detail to Eduard's 1:48 scale Limited Edition MiG-29UB Fulcrum.

In addition to releasing its own range of models, Eduard regularly reboxes other manufacturers' kits in their 'Limited Edition' range with the addition of their own aftermarket accessories.

Eduard's 1:48 MiG-29UB is a fine example of such a kit.

Quite old but still the best 1:48 scale MiG-29 on the market today, Academy's kit has been supplemented with photo-etched frets, resin details, masks and a large decal sheet.

Polish modellers as well as special markings aficionados should be pleased with the choice of the box art subject.

All in all, in my opinion the Eduard's offering is interesting but incomplete. It would have been nice if it also included detailed exhaust nozzles (available separately in the Eduard's Brassin range) and wheel wells.

I had the latter cast in resin from a friend. He also provided me with resin wheels and some spare photo-etched bits.

The kit's pitot tube was replaced with Master Model's lovely turned metal offering.

My main references were Kagero's Topshots 006 booklet, which contains detailed walkarounds of single-seat Fulcrums, and close-up photos from personal collection of Aleksander Szumski.

ASSEMBLY

Bearing in mind that Academy's kit has some fit issues, I decided to depart from the building sequence suggested in the instructions. Various glitches of the Academy's Fulcrum have been widely described in the past. However, I didn't know if Eduard's accessories would fit the kit, so I started by installing most of them.

Next, I completed the fuselage and wings, putting the smaller parts together into bigger units

eduard
LIMITED EDITION
1/48
648 044 MiG-29 exhaust nozzles 1/48
BRASSIN
BRASSIN
eduard

> **“Bearing in mind that Academy’s kit has some fit issues, I decided to depart from the building sequence suggested in the instructions.”**

and then fitting them together.

Many of the panel lines were obliterated during this process so I had to rescribe them later.

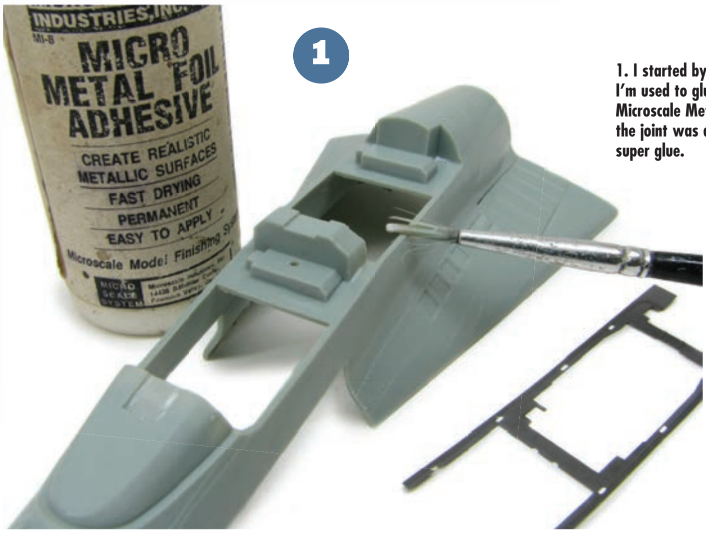
In terms of the model’s accuracy, I focused on the proper assembly of aftermarket accessories. The only areas that I improved myself were the centreline external tank and the cannon area, as these details were not covered by Eduard’s photo-etched set.

PAINTING AND WEATHERING

I started the painting stage by pre-shading the panel lines as well as the whole airframe with black, white, and blue paints. I also sprayed some streaks with varying intensity intended to enrich the surface, and would therefore show through the camouflage. Next I airbrushed the camouflage colours, masking the demarcation lines with plasticine and masking tape.

The main decal sheet was printed by Cartograf, while the smaller sheet with the Polish Kosciuszko Squadron emblem was printed by Eduard. I must admit that I was worried about applying the emblem, not due to the producer but because of the plastic surface that was full of bulges, over which it had to be applied. Fortunately, there were no problems during the application of decals.

To finish the kit I used various AK-interactive weathering products. Even though ‘Red 15’ generally appears to be clean and well maintained on the photos I found, I thought that the kit would look dull and toy-like if depicted in such a condition. Thus, I decided to recreate various weathering effects spotted on the photos of single-seat Fulcrums of Polish Air Force included in Kagero’s Topshots series booklet. Therefore, please note that this miniature is more my own interpretation of a Polish MiG-29UB rather than a perfect replica of the real ‘Red 15’. •


1
MICRO METAL FOIL ADHESIVE
CREATE REALISTIC METALLIC SURFACES
FAST DRYING
PERMANENT
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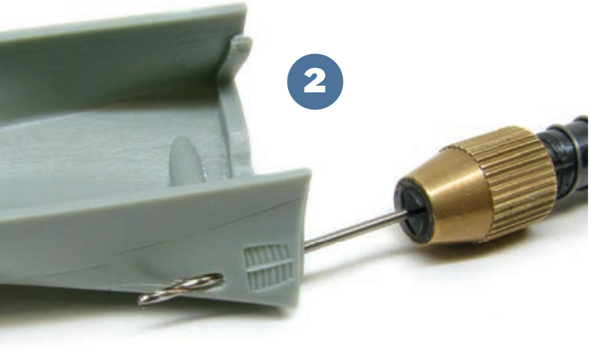
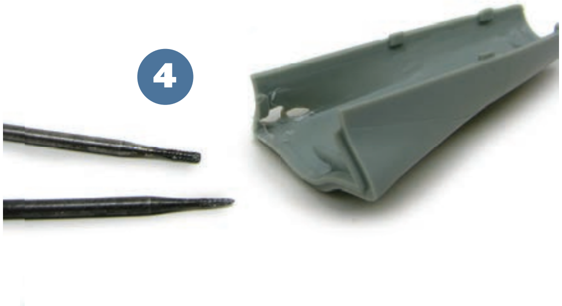
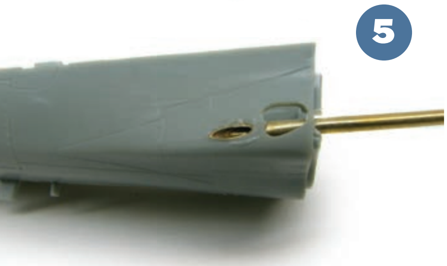
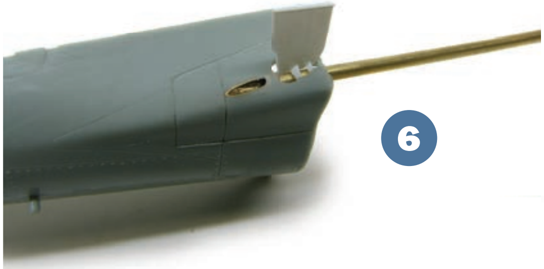
Microscale Model Finishing

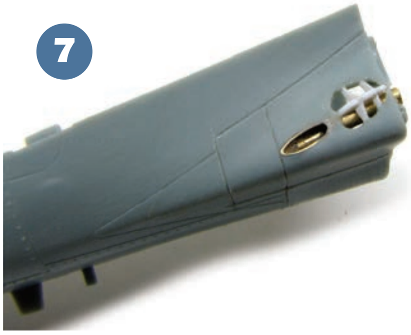
1. I started by fitting the cockpit parts. I’m used to gluing large flat PE parts with Microscale Metal Foil Adhesive. This time the joint was additionally strengthened with super glue.



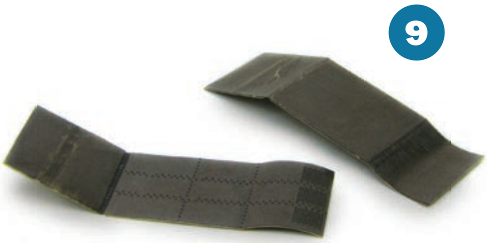




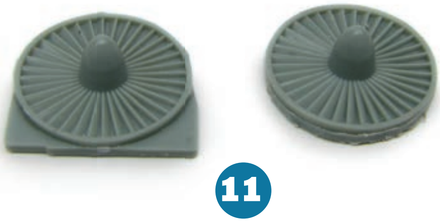


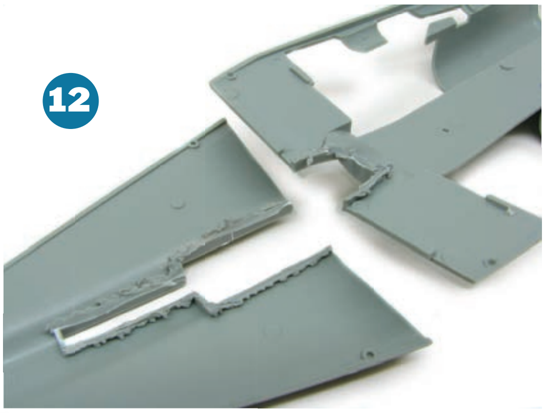


2-7: The cannon area was simplified and had the wrong shape. Eduard's PE fret didn't contain any parts to correct the vents, so I had to improve them myself. First I drilled the necessary holes and reduced the thickness of their edges. The muzzle was replicated using Griffon Model's brass hollow pipe, while for recreating the shutters I used properly cut pieces of 0.25mm & 0.5mm styrene sheets.



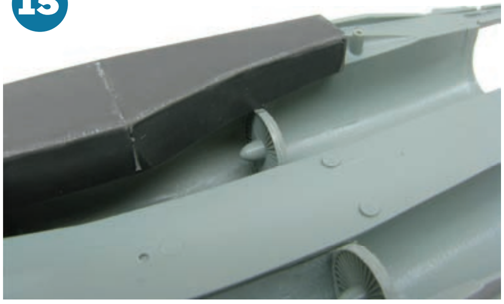
8-11: In accordance with the building sequence I had adopted, my next step was to assemble the air intakes. First I removed countless ejector pin marks and filled the parts' joints with putty. The PE intake covers had to be profiled properly prior to mounting them. Please note that both the original plastic parts of the Academy and Eduard's assembly guide depict the covers as completely flat, which is an obvious mistake. Taking into account mounting the resin wheel wells, I had to crop the imitations of engine turbines.





12-17: Before I began fitting the resin wheel wells, the moulded-in areas had to be removed and the edges of the openings trimmed. Installation of the nose wheel bay required gluing the lower fuselage parts together. To check the fit of main landing gear bays I had to attach the engine covers first. It turned out that the engine turbines required further sanding to fit the resin parts.

15



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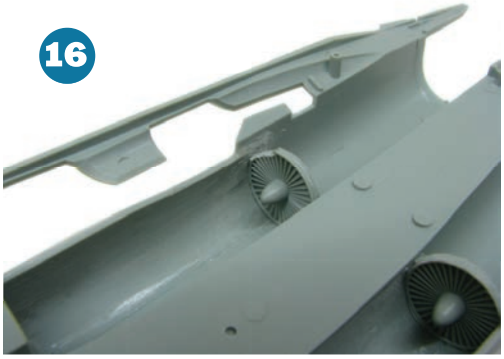

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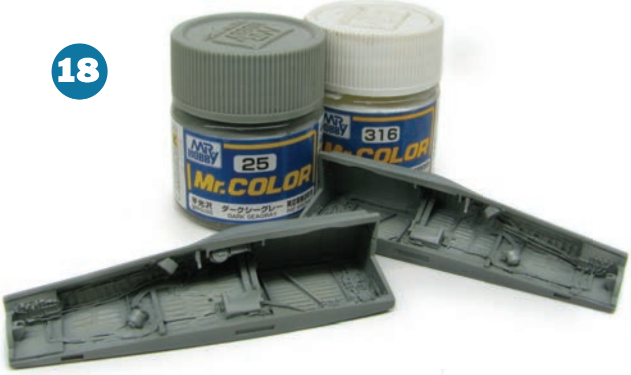

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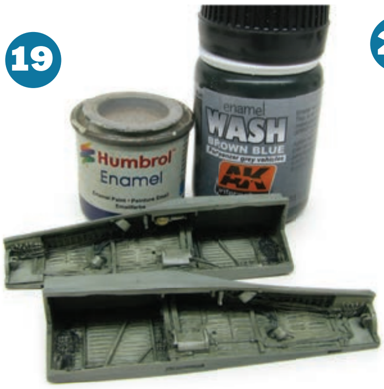

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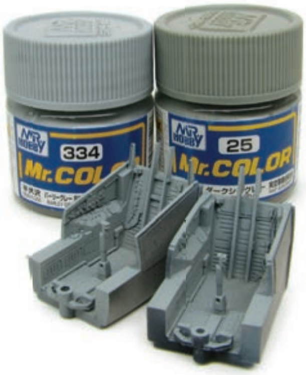
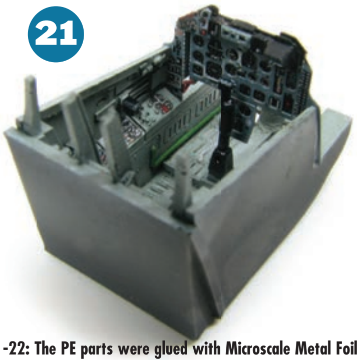


18: Access to main landing gear bays is limited after completing the fuselage, so I had to paint them before assembly. First I airbrushed them with dark sea grey. Next I mixed that paint with off white and added some highlights. The details were painted with Vallejo acrylics.

19: My next step was to apply AK-Interactive's Brown Blue Wash for Panzer Grey Vehicles. I dry-brushed the wheel wells with grey enamel paint to bring out the details.

20: As the double cockpit was to be enhanced with PE bits, I first had to glue the main resin parts together and paint it with various shades of grey.

21



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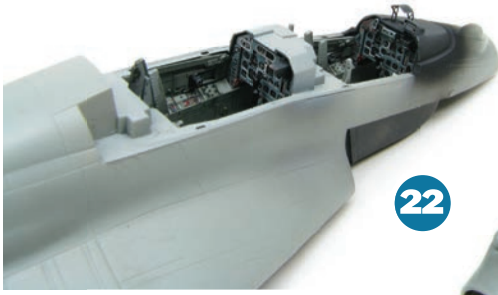

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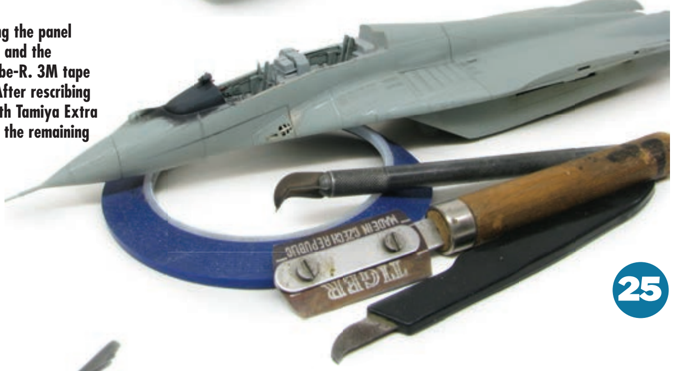
23-24: The fuselage assembly was laborious because the parts didn't fit well. I had to fill many gaps with C.A. adhesive and then sand the surface smooth to remove the faults.

21-22: The PE parts were glued with Microscale Metal Foil Adhesive. After I had painted the details, I strengthened the joints with a coat of clear varnish. A subtle application of AK-Interactive's Brown Blue Wash for Panzer Grey Vehicles highlighted the details, then the double cockpit could be attached to the fuselage.

24

25: I followed up by rescribing the panel lines using a razor saw blade and the amazing RB Productions' Scribe-R. 3M tape worked well as a template. After rescribing the lines I smoothed them with Tamiya Extra Thin Cement, which dissolved the remaining plastic dust.



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26: Fitting the wings and stabilisers was equally time-consuming and required similar treatment.

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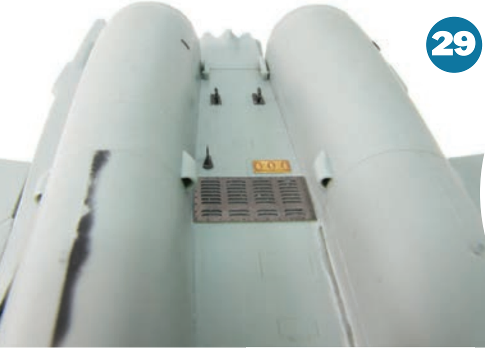
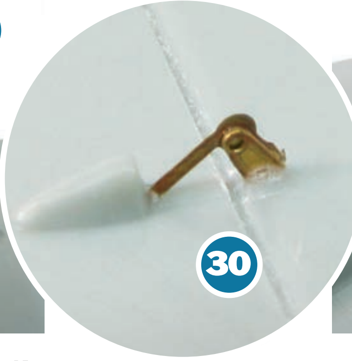
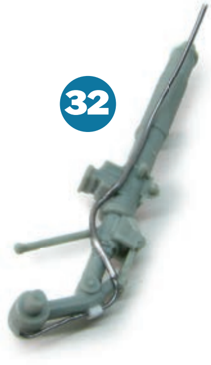
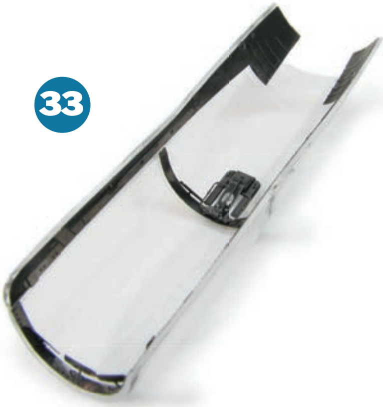


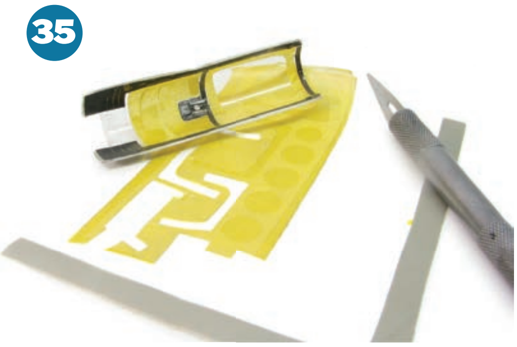


27-31-: Now I could add the external details. I attached some PE bits and small air intakes. The latter required drilling and sanding.



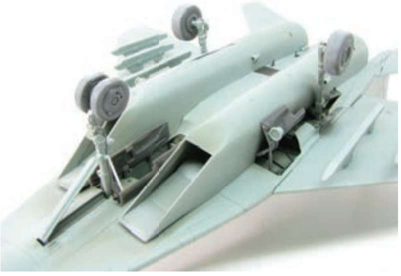
32: I also improved the landing gear with some tin wire.



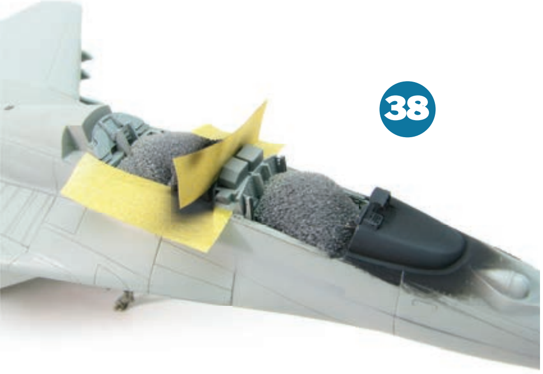


33-35: Eduard provides many PE parts for the inner side of the canopy. Again, I used Microscale Metal Foil Adhesive to attach them. The rear wall was attached to the fuselage to make its fitting easier. As the kit includes masks for the outer side of the canopy only, I had to prepare a second set of masks, using the Eduard's masks as templates.

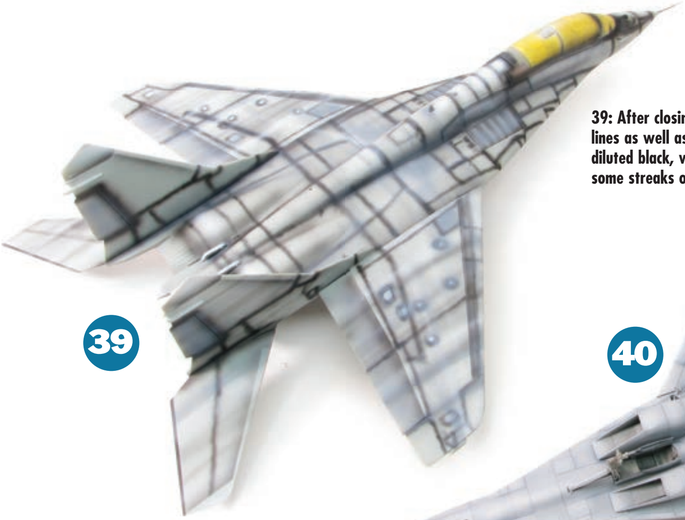
36: The plastic pitot tube was replaced with Master Model's AM-48-061 turned brass pitot.



37: Finally, I attached the landing gear legs and wheel bays covers, using both plastic and resin parts.

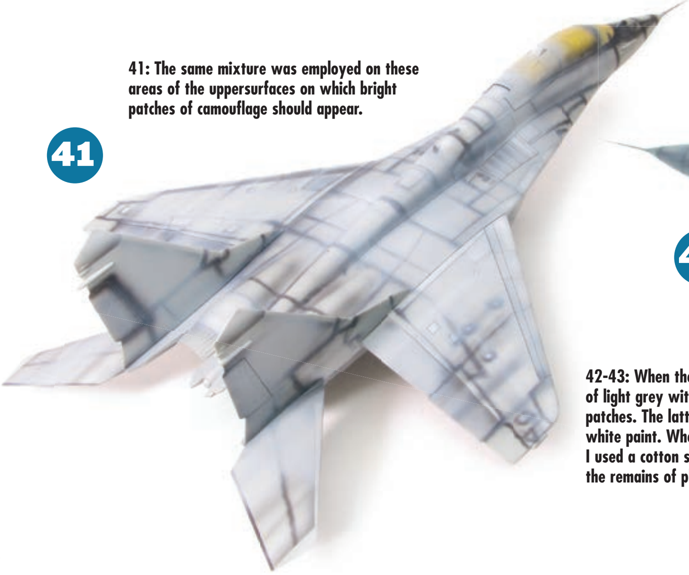


38: The painting stage was started by coating some details inside and around the cockpit. I used pieces of sponge and masking tape to mask the already painted areas.

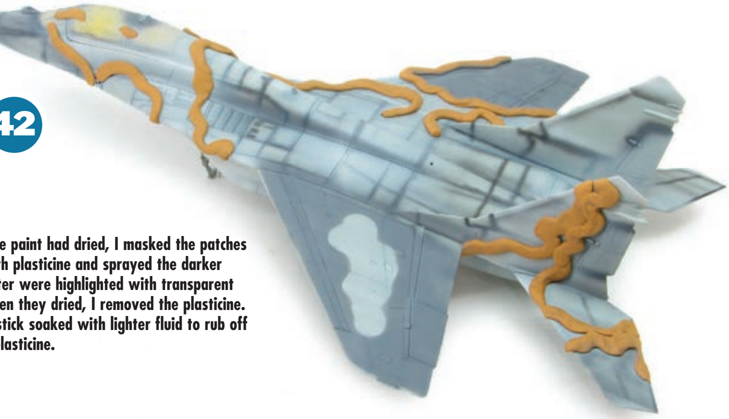


39: After closing the cockpit I pre-shaded the panel lines as well as the whole aircraft's body with much diluted black, white, and blue paints. I also sprayed some streaks on the wings and stabilisers.

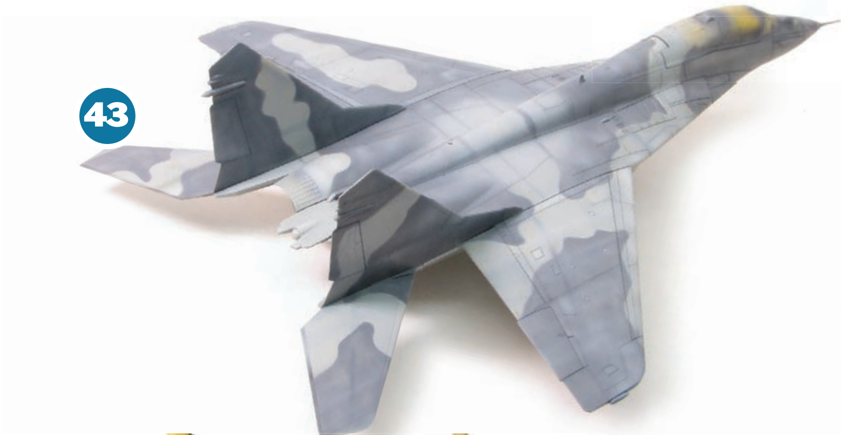
40: Next I airbrushed a grey base coat over the undersurfaces and added some highlights with a much diluted mixture of the base paint and a little white



41: The same mixture was employed on these areas of the uppersurfaces on which bright patches of camouflage should appear.



42-43: When the paint had dried, I masked the patches of light grey with plasticine and sprayed the darker patches. The latter were highlighted with transparent white paint. When they dried, I removed the plasticine. I used a cotton stick soaked with lighter fluid to rub off the remains of plasticine.



44
Mr.COLOR
25

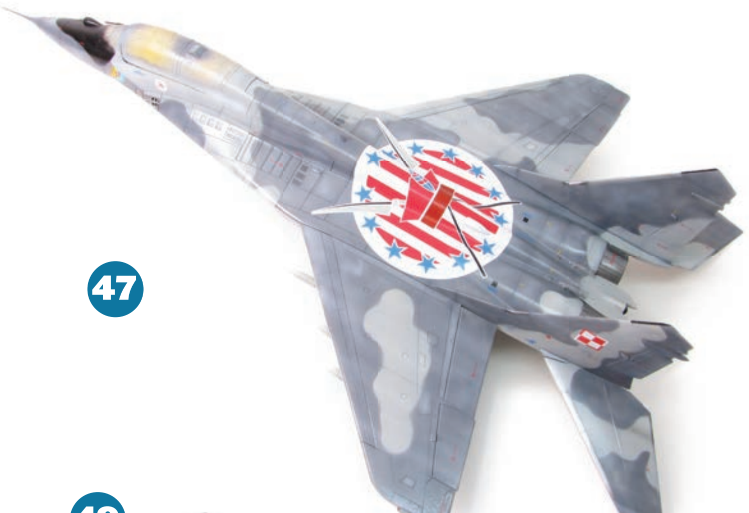
44: To spray the inner sides of the wheel bays covers and landing gear legs with a different shade of grey I simply masked them with a piece of paper, covering them around during airbrushing.

45
8
Mr.COLOR
WATER BASED ACRYLIC PAINT
18
HOBBY COLOR
STEEL

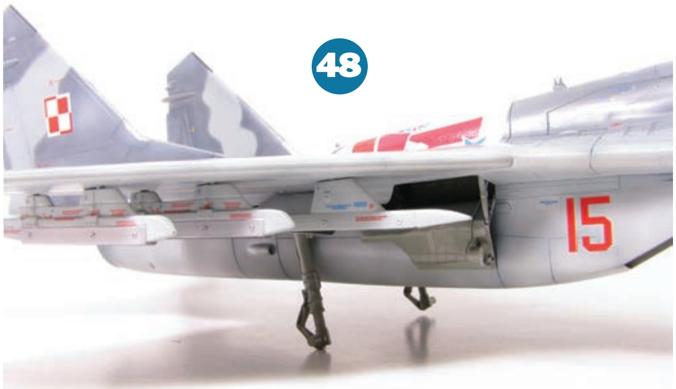
45: To paint the NMF areas I had to mask much more than the colour boundaries to protect the grey surfaces against the metallic overspray. Next I sprayed the proper areas with steel paint and followed up by adding some highlights with silver.

46: The details were painted with Vallejo acrylics. Then the kit was given a layer of clear gloss coat before I started to apply the numerous decals.

47



48

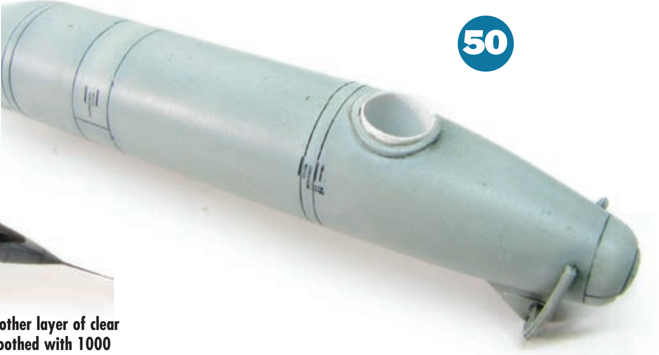


47-48: Eduard supplies even the smallest stencils but they are all in the Russian language, while the photos of 'Red 15' reveal Polish stencilling. Moreover, the scheme of application contains many errors. At least the quality of the decals is excellent, which is important due to the large size of the Kosciuszko Squadron emblem. The decals worked well with a help of Microscale's setting solutions.

49

49: The decals were sealed with another layer of clear gloss coat then the surface was smoothed with 1000 grit sand paper. My next step was to do the wash. I applied AK-Interactive's Brown Blue Wash for Panzer Grey Vehicles.

50



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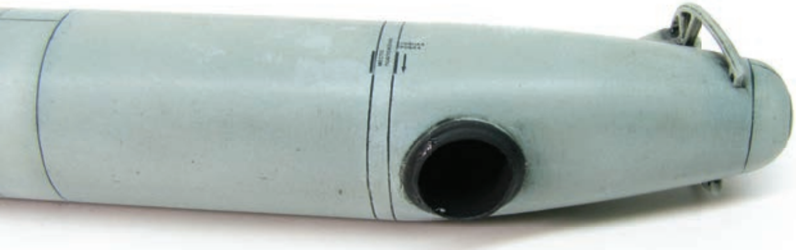
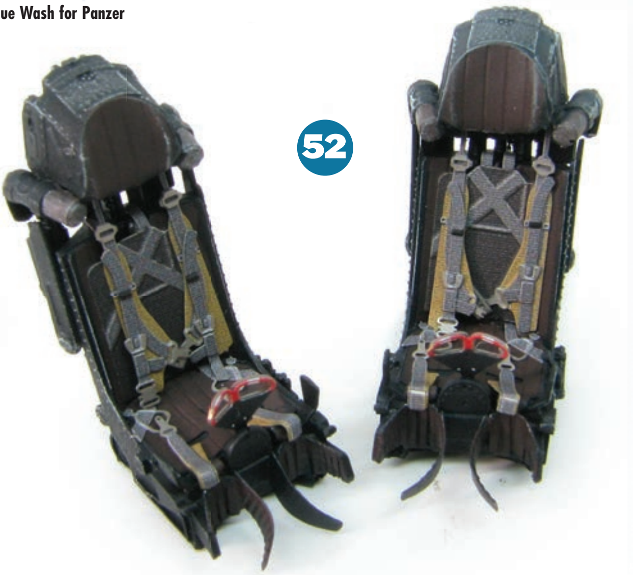
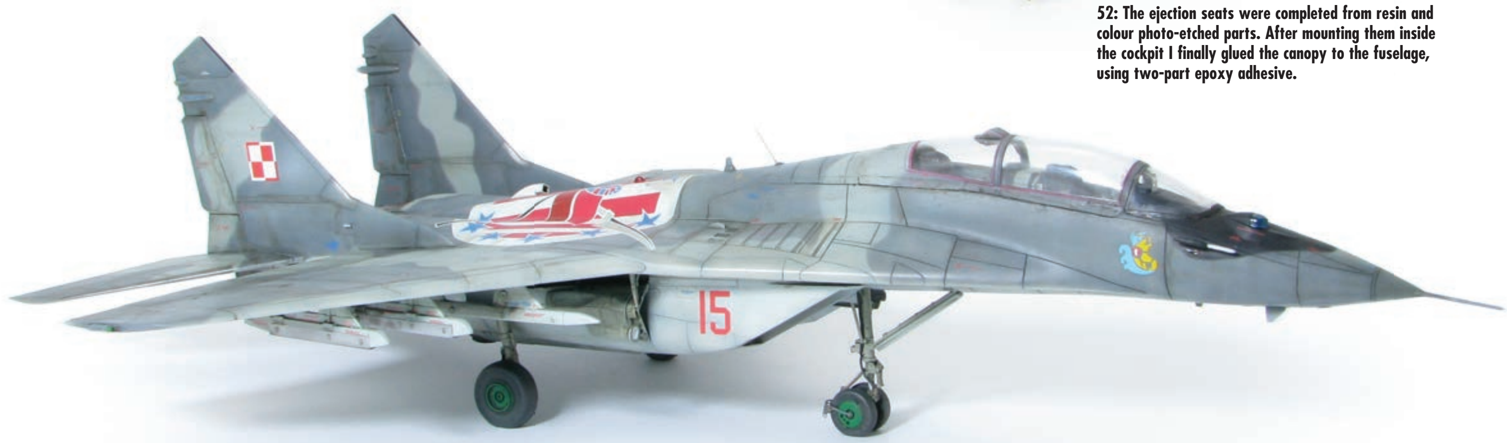


50-51: Before I finally completed the kit, I decided to correct the centerline external tank. It lacked the hole for exhaust coming from APU exhaust vent. I drilled the opening and glued a tube made of 0.25mm styrene sheet inside it. Next I painted it black.

52



52: The ejection seats were completed from resin and colour photo-etched parts. After mounting them inside the cockpit I finally glued the canopy to the fuselage, using two-part epoxy adhesive.



AK 084
AK interactive
ENGINE OIL
glossy finish
enamel color
AK 082
AK interactive
ENGINE GRIME
enamel color

53

54

53-54: The weathering effects were done with AK-Interactive's Engine Grime and Engine Oil, both diluted with White Spirit and applied with a fine brush. I used walkaround photos of various Fulcrums of Polish Air Force as the reference.

MODELSPEC

Eduard 1:48 MiG-29UB. Kit No. 1162

Accessories Used :

MiG-29UB – Eduard Item No. 1162,
MiG-29 Exhaust Nozzles – Eduard Brassin Item No. 648044
Pitot tube – Master AM-48-061
Resin Wheels – Karaya,
Resin Wheel bays and Covers – custom made.

+ Good base kit; excellent upgrades included

– Would have been nice to have resin exhausts and a few other enhancements.

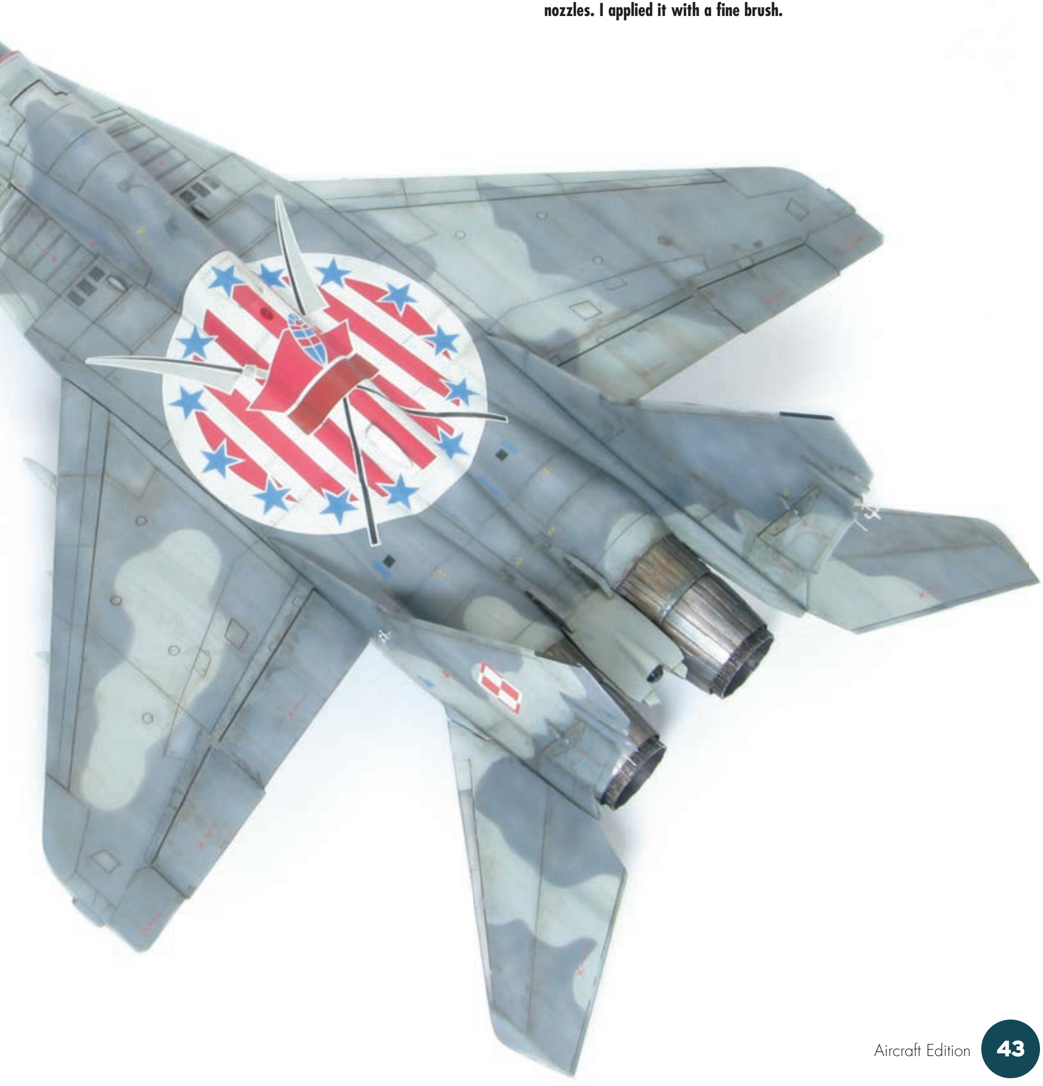
RATING: 8 out of 10

Eduard kits are available in the UK from Creative Models Limited
www.creativemodels.co.uk

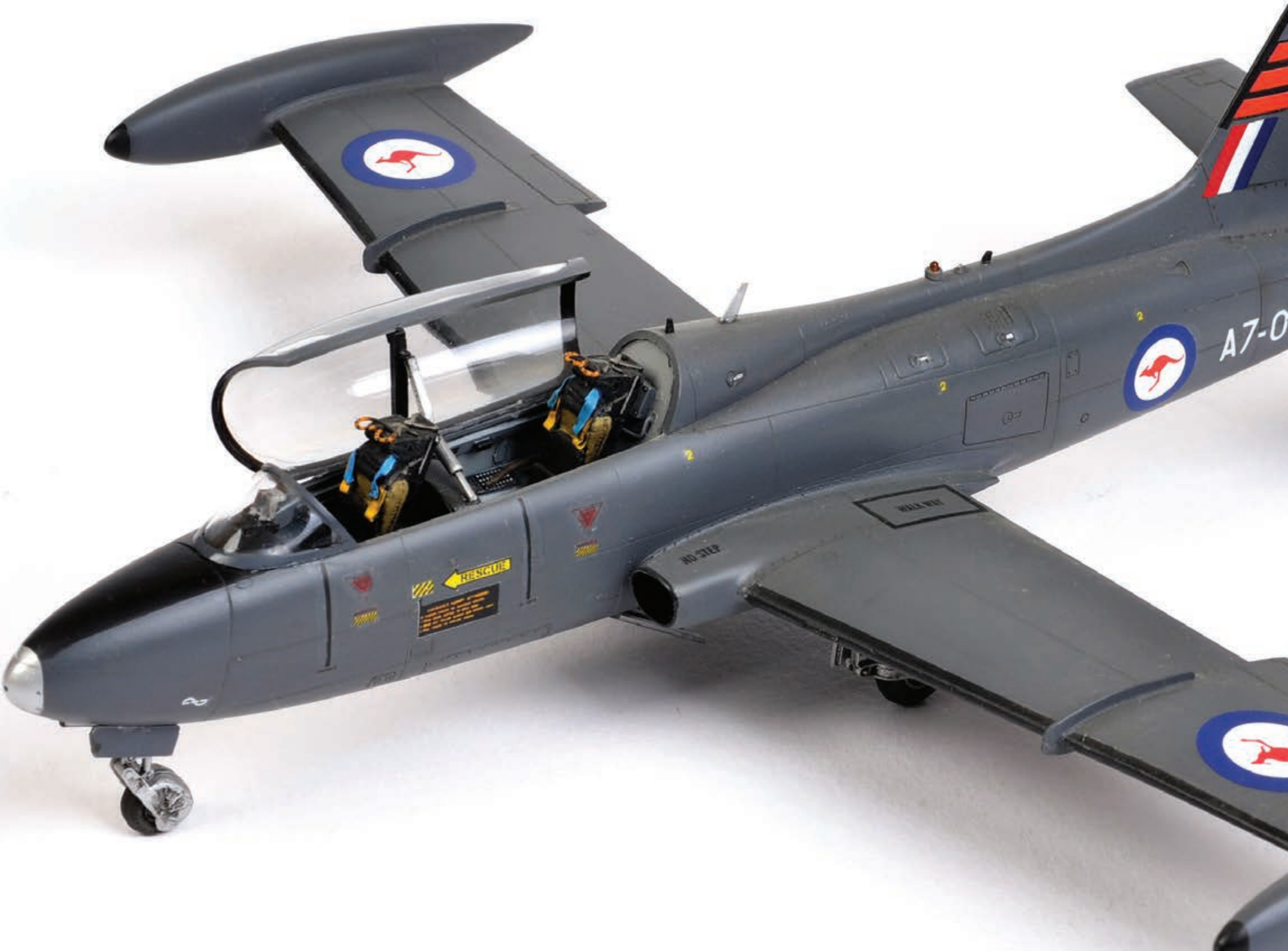
55

enamel
WASH
TRACK WASH
AK interactive
AK 083
AK 069
AK interactive
STREAKING GRIME for PANZER GREY
enamel color

55: Eduard's Brassin exhaust nozzles are excellent quality and very well detailed. It is just a shame that only some of the details are visible in the built kit. I used Super Iron from the Gunze Super Metallic line as the base coat. Next I masked some areas of the nozzles and sprayed the other ones with Gunze Dark Iron. After polishing the latter I applied AK-interactive's Dark Brown Wash for Green Vehicles. Then I imitated burnt surfaces and fume stains, using AK-Interactive's Track Wash and Streaking Grime for Panzer Grey. Yellow and blue stains were done with Tamiya Weathering Master. The final touch was to add some black pigment inside the nozzles. I applied it with a fine brush.

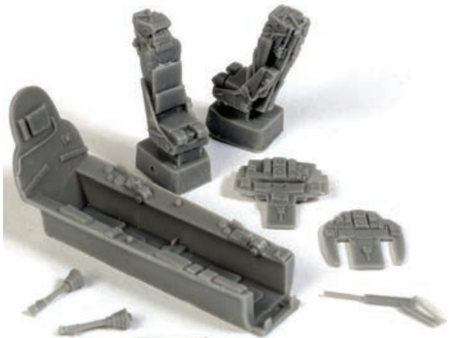


> *"Quite old but still the best 1:48 scale MiG-29 on the market today, Academy's kit with Eduard's photo-etched frets, resin details, masks and a large decal sheet."*



PANTHER VS. SWAN

The Editor builds and details Italeri's 1:48 scale Macchi MB326H trainer, finished in RAAF markings.


OzMods' resin cockpit components.

ESCI's 1:48 scale Macchi MB326 kit dates from at least 1983, but it is fundamentally a nice little model with crisply engraved and very petite panel lines, minimal moulding problems, straightforward construction and good fit.

Italeri recognised the value of this old kit by re-releasing the Macchi MB326 under its own label in 2004. It is still widely available today.

The area that most noticeably lets Italeri's Macchi down is the cockpit. The rudimentary tub, blank instrument panels and side consoles and oversimplified seats will be noticeably lacking under that nice big clear canopy.

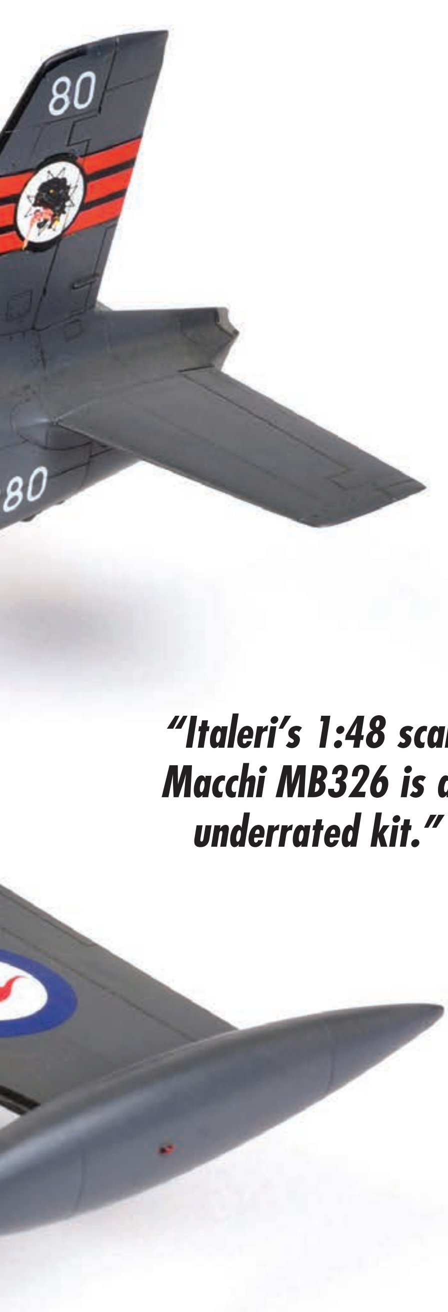
Fortunately, in 2007, OzMods of Australia released a resin replacement cockpit for ESCI/Italeri's 1:48 scale Macchi MB326. The configuration is best suited to one of the 97 Macchis that served with the Royal Australian Air Force and Royal Australian Navy.

For more information and many images of the Macchi MB326H in Australian service, see Darren Mottram's excellent three-part Reference Series from 1998 on HyperScale http://motty.hobbyvista.com/Macchis/Macchi-Index.html

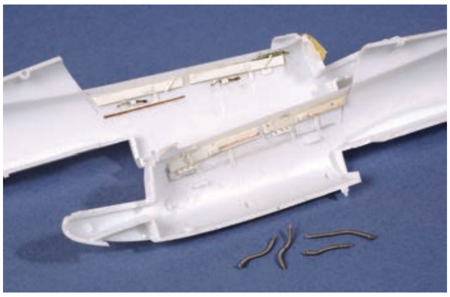
OZMODS' COCKPIT IN THE BOX

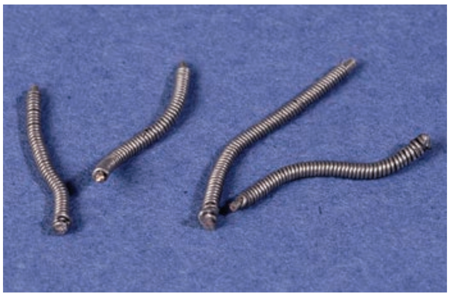
OzMods' 1:48 scale Macchi cockpit comprises just nine parts in grey resin. All the parts are well presented with no casting imperfections present on my sample. The biggest component is the one-piece cockpit tub. This is ready to use, with the casting tub already sawn off the bottom.

Side console detail is very well done. Similarly, the instrument panels feature deep and authentic

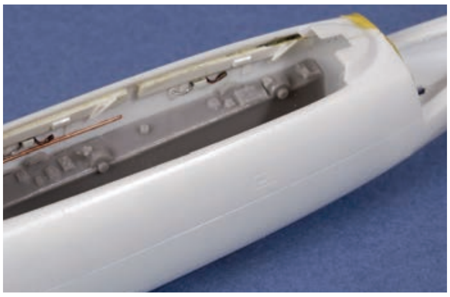


"Italeri's 1:48 scale Macchi MB326 is an underrated kit."


Detail was added to the kit's cockpit upper sidewalls before the tub was installed.


Oxygen hoses were made from very fine wire wrapped around slightly thicker wire.

The tub was fitted prior to painting the cockpit parts.


The extra time spent on the scratch built upper sidewall detail is well worthwhile as it is very visible.

detail - a vast improvement over the ESCI plastic parts. The seats are another highlight. They are dressed with the various RAAF cushions and packs, but they are lacking any harness straps and ejection pull handles. These should be added using lead foil and wire or similar materials.

The remaining pieces are control columns, canopy brace and canopy support.

STARTING WITH THE COCKPIT...

Surprisingly, upper sidewall detail is not addressed in the OzMods cockpit so the first task was to measure and mark the interior sidewalls, then add some detail using plastic strip and wire. I also fabricated four oxygen hoses by wrapping very fine wire around slightly thicker wire.

Next, harness straps were added to the seats. I wanted to dress the seat with the harness straps off the seat (stowed beside the seats on the consoles), so I used lead foil to permit me to position the straps after everything else was painted and the seats were installed.

I painted all the components black. The various black panels were masked off with Tamiya tape before the cockpit tub and instrument panels received a coat of Gunze-Sangyo acrylic H334 RAF Barley Grey. This might not technically be the correct colour, but the slightly glossy light grey looked appropriate.

Details were picked out with a fine brush. Decals were also used for more precision in tricky areas such as the instruments and fuse panels. Many of these punched and cut out of the relatively ancient ESCI decal sheet.

A number of Reheat placard decals were also applied. Washes were used only sparingly to maintain a clean look in the cockpit.

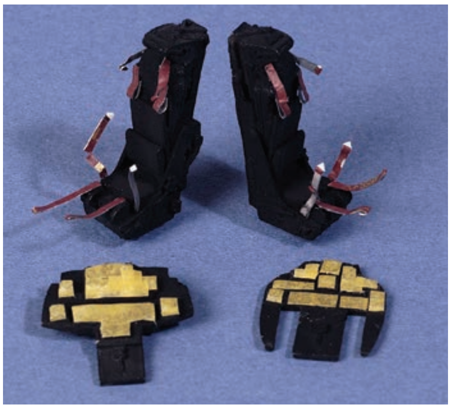
The fit of OzMods' cockpit components was perfect. No trimming, sanding or adjusting of the kit parts or the resin cockpit tub was required. There is also plenty of space for weight in the nose and under the cockpit to prevent this model from resting on its tail skid.

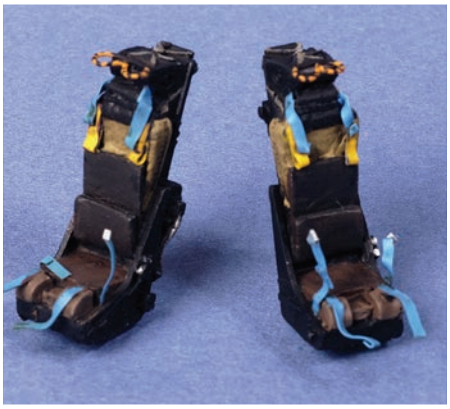
I spent more time on this cockpit than on most, but I was pleased with the result.

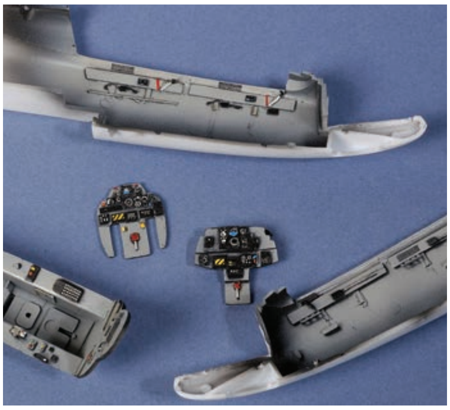
GENERAL AIRFRAME

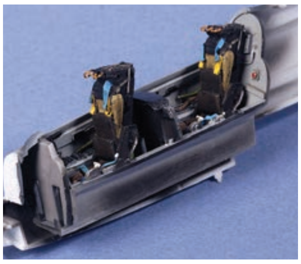
In addition to their cockpit set, OzMods also offers the big 90 gallon wing tip tanks almost exclusively used on all but the very earliest Australian Macchis, machine gun pods, flaps and replacement nose gear for ESCI's old kit. I used all of these resin parts except the gun pods.

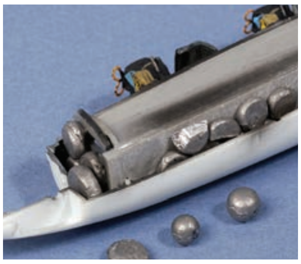
Casting of these parts was not up to the standard of the cockpit. The wing tip tanks suffered noticeable crazing and some

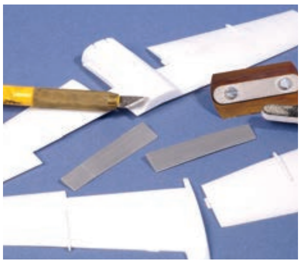

The seats and instrument panels with their base black coat in place. The bezels on the instrument panel have been masked for the coming grey coat.


Detail painting complete on the seats.


Cockpit painting and weathering is done.


The cockpit tub was glued into the starboard fuselage side.


Additional weight is required to prevent this model from sitting on its tail.


Landing flaps were cut out of the kit wings in preparation for OzMods' resin replacements.

MINI MODELSPEC

Italeri 1/48 Macchi MB326H. Kit No. 2626

Accessories Used:

OzMods Item No. 4810 – Macchi MB326H Cockpit Update Set
OzMods Macchi MB326H 90 Gallon Tanks

Paints and Finishing Products Used:

Alclad Grey Primer
Tamiya AS-4 Grey Violet
Gunze-Sangyo acrylic H334 RAF Barley Grey

+ Nice petite surface detail; accurate shapes; simple build

− Basic cockpit

Rating: 7.5 out of 10

Italeri kits are distributed in the UK by The Hobby Company Limited www.hobbyco.net

misalignment along the centreline. Even so, this set was better than a second pair that I also had in my collection, so I slathered the affected areas in putty and sanded the surface smooth. The tanks eventually looked fine under a coat of primer.

One of the resin flaps was warped, but it was quickly straightened after dipping in hot water, followed by a second dip in cool water to freeze the corrected shape.

The flap sections were carefully removed from the upper and lower wing halves using a JLC Razor Saw and a sharp hobby blade, and the interior surfaces were bevelled to accommodate the new resin flaps.

The extra time spent in the cockpit and on the flaps was easily compensated by the balance of construction, which was completed in a few hours.

Fit was very good indeed with only minimal filler required.

PAINTING AND MARKINGS

All paint was applied with my Testor Aztek A470 airbrush fitted with the fine tan coloured tip.

Painting started with a coat of Alclad Grey Primer. The black leading edge boots and anti-glare strip were also masked and sprayed at this stage.

Next, the dark grey was sprayed over the entire airframe. I used Tamiya Spray AS-4 Grey Violet for this shade, decanted from the spray can into my airbrush paint cup. This colour looks too dark and too neutral for the Luftwaffe colour, but was just about right for my purposes on the Macchi.

I originally planned to have a slightly patchy finish on a well-worn airframe, but I was not happy with the effect after several attempts.

I also started testing the ALPS decals from Hawkeye and found that the white backing decals remained translucent over the dark grey. I therefore painted white underneath some of the larger markings.

At this point, I was feeling a bit disheartened with the appearance of the model so I set it aside.

Five months later, I literally dusted off the plastic and resumed with new enthusiasm.

I eventually decided to abandon the heavily weathered look, and sprayed over the patches. Two coats of Future were sprayed over the model for a glassy gloss in preparation for the delicate ALPS decals.

I wanted to build a particular machine, one of two transferred from the RAAF's 76 Squadron to 25 Squadron in Western Australia. Before transferring this Macchi, 76 Squadron "zapped" their emblem on the fin. The 76 Sqn Black Panther could be seen mauling a pink duck, their interpretation of the 25 Sqn Pink Swan emblem.

Hawkeye Models produced ALPS decals for a similarly "zapped" Macchi in grey/green camouflage, A27-05, but I wanted to depict the overall grey aircraft. I therefore needed new serials and some different stencils.

I sourced decals from all over the place, including the mauled pink swan from Hawkeye, ESCI kit decals, and several Model Alliance sheets.

Polly Scale Flat was sprayed over the newly applied decals. There was no sprayed post-shading on this model, but I did add a wash of thinned oil paint to the control surface hinge lines, and Tamiya Semi-Gloss Black thinned with water in other panel lines.

Smaller parts were now added, including the undercarriage and "disco lights"- the orange strobes on the top and bottom of the fuselage. Other details not included in the kit such as blade and vane antennae were cut from plastic strip and card, and glued in place.

The kit canopy parts are thin and beautifully clear, so I did not bother to dip them in Future. OzMods supplies a cross brace and strut for the canopy, but the exact placement is not shown in the instructions and I could not find a clear reference photo. I hope that I have it right!

CONCLUSION

Italeri's 1:48 scale Macchi MB326 is an underrated kit.

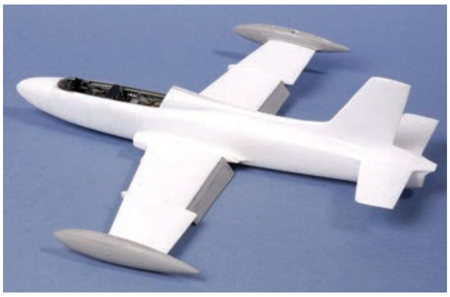
The release of OzMods' 1:48 scale Macchi MB326 cockpit was a welcome surprise and makes a huge visual impact on the bare front office of this otherwise respectable model. You will be further rewarded for your extra efforts in the areas of sidewall detail and seat harnesses.

With the addition of the big wing tanks and dropped flaps, the model takes on an aggressive yet graceful stance.

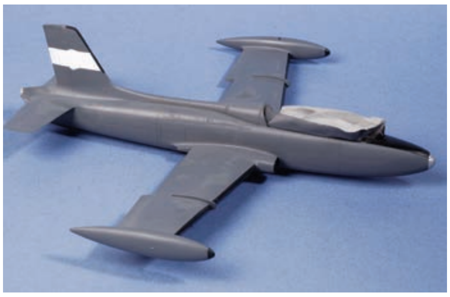
There are also a huge number of colourful marking options for this truly international jet trainer. •

> ***"The 76 Sqn Black Panther could be seen mauling a pink duck, their interpretation of the 25 Sqn Pink Swan emblem."***

The crazed tip tanks before priming and sanding.

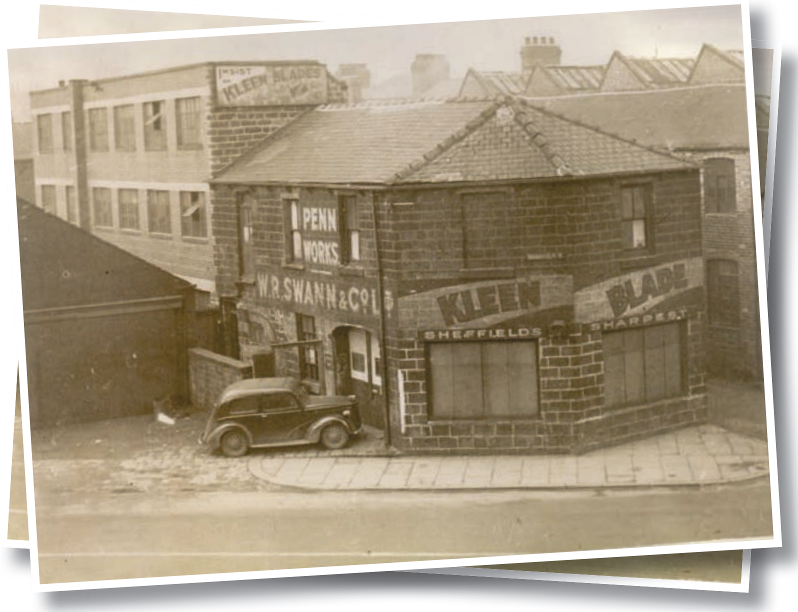

The tanks have been sanded and primed here, hiding the crazing effect.

Alclad Grey Primer provides a tough base for the coming colour coat. The black areas have been painted and will be masked.


The white area on the tail is necessary because the decals lacked opacity. The ESCI / Italeri Macchi MB326H is a nice little kit, made even better with OzMods' cockpit.

Joe Brown takes a trip to Sheffield to visit Swann-Morton on their 80th birthday

SWANN MORTON MEDICAL TO MODELS



The Second Factory still in existence today just a short distance from "Penn Works".

Walter Swann, one of the four founding members of whom the company is named after.

The name Swann-Morton instantly brings images of scalpels and blades to most modellers' minds, but delve deeper below the surface and you find a company which celebrates its 80th birthday that has been on the 'cutting edge' of blade technology since its inception all those years ago. Even today they are still saving lives worldwide, with their instruments being used by 95% of UK hospitals alone.

The small silver packets that you unwrap before the start of a fresh model-build and click into place on your favourite sized scalpel holder have an amazing history behind them and it all started with just three people; Walter Swann, Alfred Morton and Miss Doris Fairweather. They founded the company in 1932 Called W R Swann & Co. Mr Swann had four founding principles to run the company by.

1; The individuals in the industry must come first, before anything else and should always remain first. They are the human beings on which everything is built.

2; If the industry cannot pay the rightful reward of labour (while they are producing profit for the owners) then a new policy is required on the part of the management to make it do so.

3; If the Management can't do the job, then a new management is required, as well as a new policy.

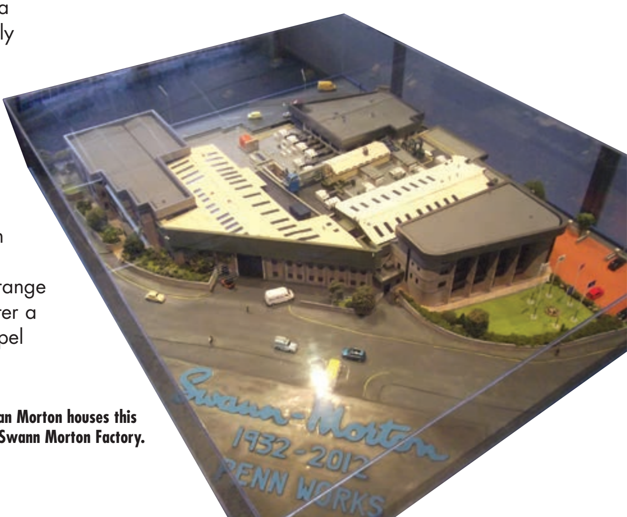
4; Individuals in any industry have a perfect right to demand and see that this objective is reached, because they produce the goods.

Running out of a small workshop behind houses in Sheffield's Woodland Street, the team began to make the 'Kleen Blade, Sheffield's Sharpest Razor Blade'.

The small firm built their own machinery and devices which were kept as simple as possible, although quality and service was utmost importance and was kept at a high level, which ensured a good business practice. Any profits in the early years simply went back into the growth of the company. The founding principles ensured care for the workers and they benefited from previously unheard of schemes, such as substantial bonuses at Christmas and the introduction and origin of the forty-hour week before Boots of Nottingham brought it to the public eye. The quality of production brought the firm to the attention of Surgical House who approached them to produce a range of replaceable blade for scalpel handles. After a short period of time, the Swann-Morton Scalpel was born.

Since then the range has grown exponentially into a huge range of handle sizes and types along with a huge array of different styles of blades, including the micro surgery blade used in dentistry. It was only a matter of time before the modelling brigade picked up the Swann-Morton line and to keep costs down a non-sterile version was soon released.

Every modeller has a preference of handle and blade type combination and to coincide with the company's 80th birthday the company has re-launched the entire range in a clamshell pack design to make identifying the products clearer. ➤



The Meeting room at Swan Morton houses this impressive replica of the Swann Morton Factory.

"I have been using Swann-Morton scalpels for modelling for twenty-five to thirty years, I have never needed anything else. I use three No.3 handles mounting No.10, No.15c and No.11 blades for general work, plus a long No.5 handle with a No.10a blade for more delicate tasks. My handles are very well used but still work perfectly and have served me well over the years. I must have used thousands of blades and I find nothing can match them for sharpness, precision and durability."

Marcus Nicholls – Editor of TMMI

"I use Swann-Morton knives on a daily basis for work and for scale modelling. As a set designer and kite maker I use the 3 Series knives with the various lengths of handle. For scale modelling I use a variety of handles and blades, from No.1 to No.5. with curved and straight blades. The surgical accuracy of the blades is essential to creating very precise results. With such a wide complement of blades and mixture of handles, every task is simplified making each project enjoyable and safe. (As they say, a sharp knife is a safe knife). The Swann-Morton range of precision knives enables me to produce results in model making that I could not other wise attain."

Carl Robertshaw

"I have been using Swann-Morton scalpels from my college days for everything from dissecting, taxidermy, art and crafts and of course for all my modelling needs; their range is of truly professional quality and I really use nothing else."

Andy Ieronymides

Swann-Morton
A.C.M SET

New style packaging for the Hobby industry.

Swann-Morton
A.C.M. SET
(ARTS, CRAFT & MODELLERS SET)
Product No. 9101

The Popular Arts, Craft & Modellers set (ACM) is one of the best sellers.

Swann-Morton
SMOR II HANDLE & 2 SM01 BLADES
Surgical quality blade.
Cutting edge performance meeting the demands of professionals.
Blades protected in anti-corrosion packaging.
Other blade options on the inside.
www.craftknives.co.uk
CAUTION SHARP BLADES

A nod on the packaging to the British manufacturing with the Union Flag proudly displayed.

SMO-R II knife is brand new for 2012 and ideal for cutting jobs that require a bit more power than a scalpel.

> ***"I use Swann-Morton products and have done so for over thirty years because they are readily available, are the very best cutting blades, are excellent value for money and come in a good range of useful shapes and sizes."***
>
> **John 'Tigger' Wilkes**

> ***"A good knife is essential for kit building and any knife is only as good as the blade. I've used Swann-Morton knives for over twenty years and they are always razor sharp and hold their edge for a long time."***
>
> **Alan Price**

Swann-Morton

Sheffield time, the Swann-Morton clock proudly shows the people of Sheffield that it's afternoon tea time!

SURGICAL STEEL

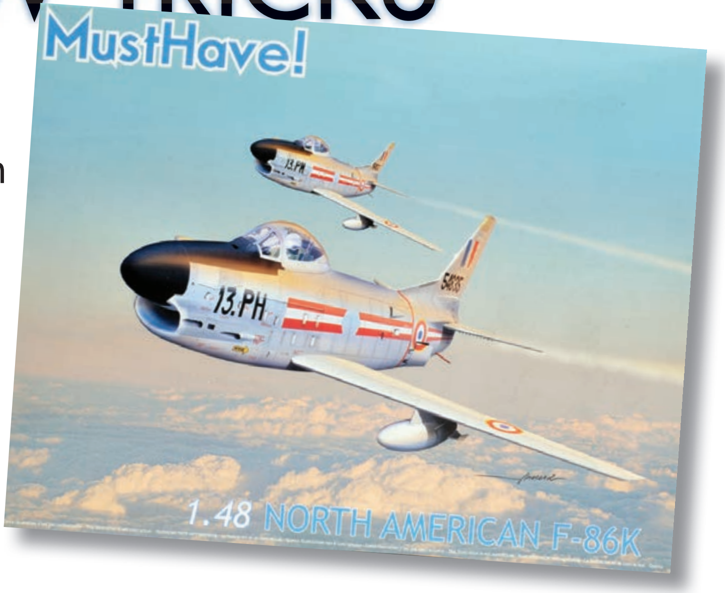
No matter where you are in the world, if you have ever had an operation, you have probably been operated on with one of these knifes. The preferred choice of many of the world's surgeons, the wide and varied range of products is also used extensively by other healthcare professionals such as GPs, nurses and paramedics along with practitioners in the associated fields of dentistry, podiatry and veterinary surgery. The only differing factor is that all surgical equipment has gone through a sterilisation period which ensures the blade is totally free of any contamination when it is put to use. Again Swann-Morton along with UKAE at Wantage pioneered the method of sterilisation using gamma radiation, before this the company used a 'vapour phase inhibitor paper' inserted into foil to keep the blades clean, dry and non-rusting, another first in the industry.

We spoke to the Luton and Dunstable Hospital in the UK about their use of Swann-Morton scalpels in everyday surgery.

> ***"We wish Swann-Morton good wishes for their 80th anniversary. Each year we use over 7,000 disposable Swann-Morton knives at the Luton and Dunstable Hospital and their knives have a reputation as being the standard scalpel knife for surgeons worldwide."***
>
> **Barry Mayes (Head Of Communications) speaking on behalf of the surgical staff**

With the foresight of the founders and the technological advances taken by the company, it's no wonder that Swann-Morton Blades are helping to save lives everyday as well as helping to make the finest models that we bring to you in this magazine. Happy Birthday Swann-Morton from all at Military Illustrated Modeller •

YOU CAN TEACH AN OLD DOG NEW TRICKS



Mick Evans takes a look at the newest release from MustHave! Models, which updates the excellent Revell-Monogram 1:48 scale Sabre Dog

This is the second kit from newcomers MustHave! models. At this point in time the company has been using existing manufacturers' kits and adding updated parts to build differing variants to those supplied by the original manufacturer. In this case, MustHave has taken the original Revell-Monogram F-86D Sabre kit and supplied the parts to convert the kit to the F-86K variant.

The original Revell-Monogram kit was a superb kit when released featuring:

- Detailed cockpits and seat
- Full length intake ducting
- Detailed exhaust nozzle
- Positionable leading and trailing edge flaps
- Detailed undercarriage and bays
- Canopy can be positioned open or closed
- Underwing fuel tanks
- Rocket bay pack (not fitted to F-86K)

The original kit was very accurate with one of the only exception being the rudder trim tab that depicted the oversized trial aircraft.

It would have been easier for MustHave to only have supplied a replacement nose section to depict the cannons fitted to the F-86K but to their credit they have provided two complete and accurate fuselage haves. The new fuselage halves have had all the panel detail corrected for the F-86K across the entire fuselage including the oversized rudder trim tab.

Included in this kit are some very nice resin and etch metal details to further improve the original kit.

The etched metal fret contains:

- New instrument panel along with a photo acetate instrument sheet
- Ejection seat harness set
- Parachute pack door
- Undercarriage scissor links
- Cockpit rail detail
- Canopy detail
- The resin parts include:
- Positionable rudder
- Instrument shroud
- Gunsight

Most of the replacement parts are a direct replacement for the kit parts but some kit surgery will be required to remove the kit parts. The rudder replacement is a personal taste and something that I will not be doing as the rudder is almost always seen in the streamlined position.

The decals provided look superb and are supplied on three sheets with one of these containing all of the data decals. They are crisply printed and are thin and have good colour saturation.

The painting instructions provide for five natural metal aircraft from four different nations as detailed below:

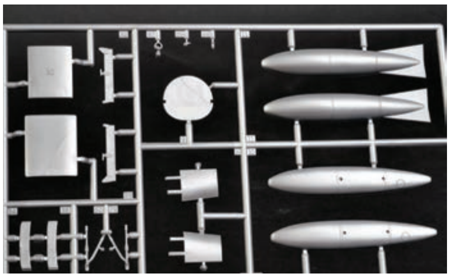
- Italian Air Force N.A (Fiat) F-86K (Kappone), Serial No 1-39/54903 flown by Magg Pilota Francesco Fatigati of 1 Stormo COT 17 Gruppo based at Istrana Air Base, Italy in Summer 1956.
- Norwegian Air Force N.A F-86K Serial No ZK-A/541251 of 337 Squadron of the RNAF based at Gardermoen Air Station Norway in 1954.
- Royal Netherlands N.A (Fiat) F-86K "Kaasjager" Y7-2/54238 of 701 AWX Squadron Klu of the RNethAF based at Twenthe AFB the Netherlands in 1959.
- French N.A (Fiat) F-86K Serial No 13 PH/54835 flown by Cne Brossier of ECTT 2/13 Alpes based at Colmar-Meyenheim France in 1957/59.
- French N.A (Fiat) F-86K Serial No 13 QV/54860 flown by Sgt Chavelet of ECTT 1/13 Artois based at Colmar-Meyenheim France in 1957/59.

This is a very welcome release enabling modellers to build the cannon armed F-86K based on the excellent original Revell/Monogram kit.

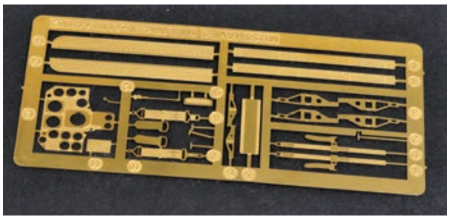
The best thing is that modellers of all levels of skill can easily build this kit and turn out a great result without extensive modification work that would have been required to build this version previously. My only beef with the kit is it would have been nice to have markings for a camouflaged aircraft of the West German Air Force.

Excellent work from MustHave and I hope they keep rolling out the nice kits. I am really looking forward to building this kit having built the original Revell/Monogram F-86D some years ago and the finished result in natural metal looked very striking.

Thanks to MustHave Models for the review sample.•

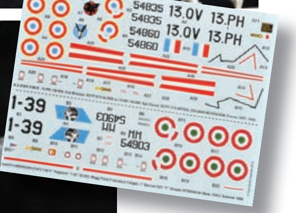


Revell-Monogram's original parts are included in silver plastic.



The kit's new photo-etched fret.

One of the all-new fuselage halves for the F-86K

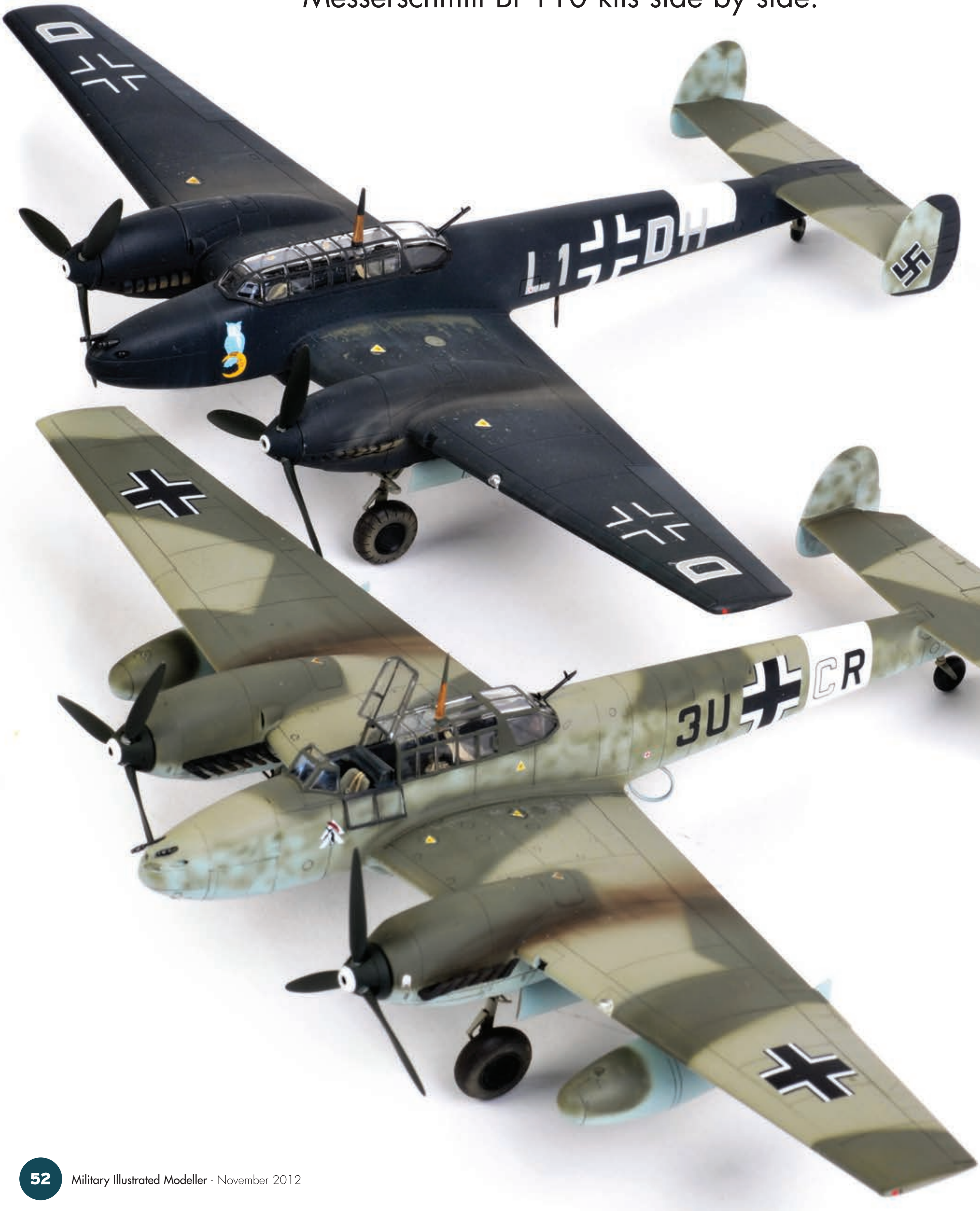


The cover five colourful options.

The rather happy looking pilot.

NIGHT AND DAY

The Editor builds the brand new Eduard and recent Airfix 1:72 scale Messerschmitt Bf 110 kits side by side.



Over the last few years, modellers have been blessed with a run of excellent new Messerschmitt Bf 110 kits in both 1:48 and 1:32 scales from Eduard and Dragon.

1:72 scale modellers have not fared so well. Until 2010, the best Bf 110 kit in 1:72 scale was the short-run High Planes kit, but this model was in limited supply and best suited to experienced modellers.

Italeri's 1:72 scale Bf 110s were disappointing from an accuracy viewpoint, while the Fujimi kit is skinny in the fuselage and sparsely detailed. The only other mainstream Bf 110 kits - from Matchbox, Airfix and Monogram - all date from the 1960s. In fact, the recently re-released 1:72 scale Revell Bf 110 E is actually a rebox of the 1967-vintage Monogram kit, sans stand.

In 2010, however, Airfix released an all-new kit; and Eduard has now also joined the expanding small scale Zerstorer market with their 1:72 Messerschmitt Bf 110 E.

BACKGROUND

The Messerschmitt Bf 110 entered the Second World War as a new and prestigious weapon of the Luftwaffe, performing the roles of bomber escort, heavy fighter and troop support during the German invasion of Poland. It performed well against Polish fighters, and put its heavy armament to effective use against ground targets after the Luftwaffe had established air superiority. The Bf 110 repeated these roles during the campaign in the West. The long range of the Bf 110 was especially useful for escorting bombers deep into France.

The twin engine Messerschmitt was more than a match for most contemporary French fighters, but early encounters with Spitfires and Hurricanes resulted in unaccustomedly heavy losses. This was an ominous indicator of the coming months over the British Isles.

In those Summer months of 1940, Messerschmitt Bf 110s on long-range escort missions suffered heavy losses to British fighters.

Even if its fortunes as a pure fighter aircraft were mixed, the Messerschmitt Bf 110 had a better record as a defensive weapon.

As early as December 1939, Bf 110 C aircraft of I./ZG 76 were involved in the decimation of an armed reconnaissance patrol over the Heligoland Bight. Eight Wellingtons out of a total 22 on patrol were claimed by the Zerstörers. This single event put massed daylight bombing off the agenda until 1943, but ZG 2 and ZG 76 continued to enjoy superiority over Blenheims and Wellingtons in the following months.

The Messerschmitt Bf 110 E was a refinement of the C and D models with production beginning in August 1940. The Bf 110 E was a useful long distance bomber and heavy fighter. In addition to its ordnance and new gunsight, revisions were also made to the rear machine gun and inside the cockpit. The most obvious exterior change was the addition of a rectangular air intake on the front of the top gun cowl. The versatile Bf 110 E served on the North African, Mediterranean, North Atlantic and Russian Fronts until 1942 and beyond.

Arguably the most important contribution made to the German war effort by the Messerschmitt Bf 110 was as a night fighter. The role was initially ad-hoc. From July, 1940, day fighters were simply painted black and sent aloft to deal with British bombers, now making their attacks under the relative protection of darkness. These early night fighters had no additional equipment nor ground control assistance. Enemy aircraft were held in the cone of a searchlight, and the Bf 110 would engage the bomber while it was illuminated in the beam.

The Messerschmitt Bf 110 C, D and E soldiered on as fighter-bombers into the mid-war years on the Eastern Front and North Africa.

AIRFIX 1:72 BF 110 C

AIRFIX 1:72 BF 110 IN THE BOX

Airfix released their new 1:72 scale Messerschmitt Bf 110 C-2/C-4 kit in 2010.

The new Airfix Bf 110 C comprises 99 parts in light grey plastic, two parts in clear and markings for two aircraft.

Moulding quality is very good. The parts have a satin finish, and the only imperfections I could find were one sinkmark on the side of the long boat tail extension and a few ejector pin marks on the inside of the main wheel covers.

Surface detail is by way of recessed panel lines. These are wide, deep and soft at the edges. By contrast, fabric texture on the control surfaces is quite subtle.

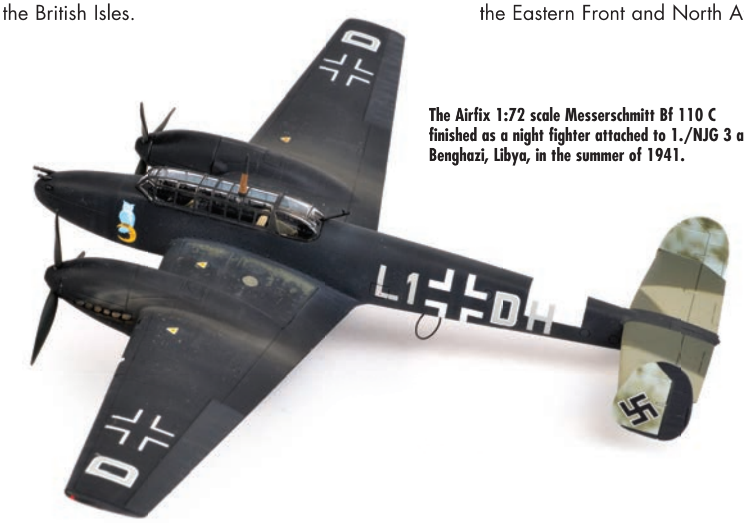
Detail is variable. The wheel wells and undercarriage are well done. The wheel wells are boxed in and feature correct frame detail on the sides and recessed space for the retracted wheel on the well's ceiling. The main wheels are bulged and flattened, and the size relationship between the hubs and the tyres looks good.

The cockpit is relatively bare but it does includes seats, two MG-FF ammunition drums and a few other structural features that are fitted into a cockpit floor. The instrument panel is a flat part onto which set of decal dials is added.

The forward firing machine guns are cleverly moulded as one piece, with each gun accurately protruding at different lengths from the front of the nose. The rear-firing 7.92mm machine gun is delicately moulded too.

The exhausts are moulded in lengths of six onto a sturdy rectangular frame; although the engineering is peculiar, with the exhausts having to be slotted into the back of the nacelles before they are attached to the wing.

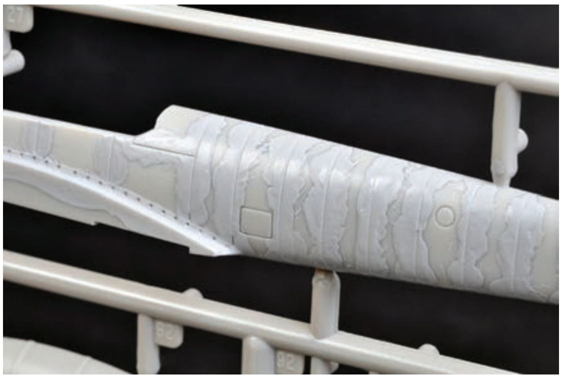
➤

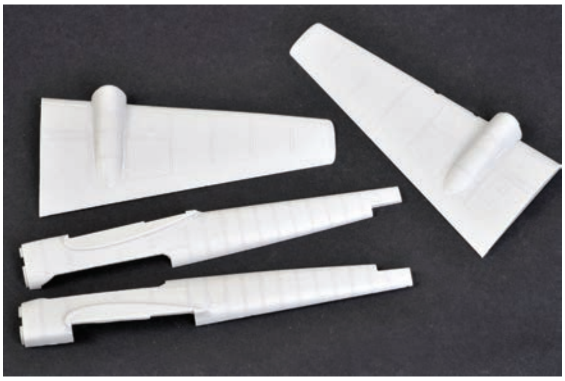


The Airfix 1:72 scale Messerschmitt Bf 110 C finished as a night fighter attached to 1./NJG 3 at Benghazi, Libya, in the summer of 1941.

AIRFIX
1:72 MESSERSCHMITT Bf110C-2/C-4
BATTLE OF BRITAIN 70th ANNIVERSARY

Airfix released their new 1:72 scale Messerschmitt Bf 110 C-2/C-4 kit in 2010.

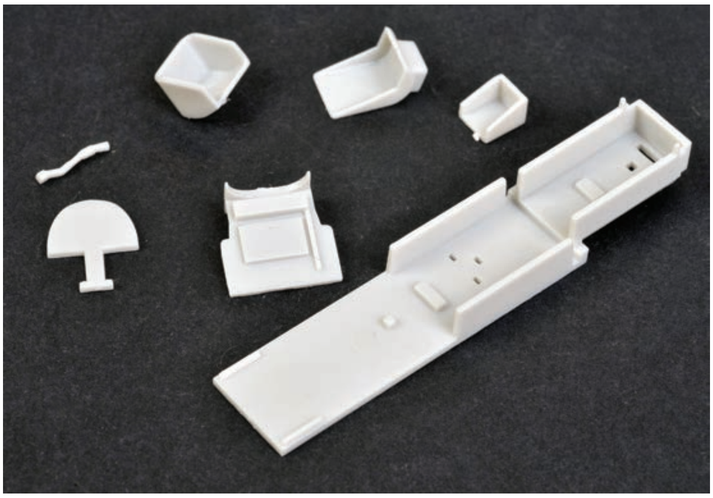




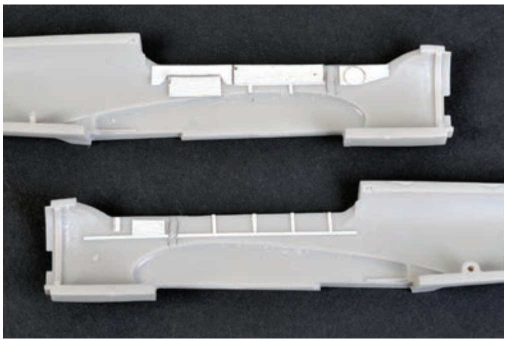
Far left: The overscale panel lines on the fuselage and the upper wings were slathered in Tamiya Surfacer.

Left: The parts were then sanded heavily to reduce the width and depth of the panel lines.

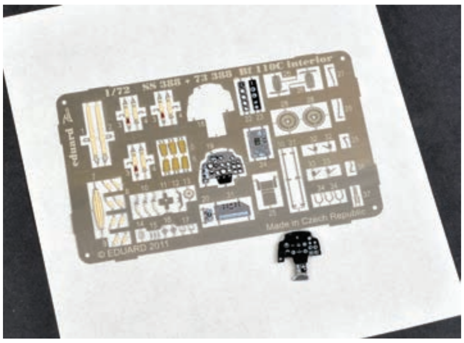
The treated wing and fuselage parts were primed before assembly to check for consistency and any lingering imperfections. The parts were lightly sanded again at this stage.



The cockpit interior is basic, but the fundamental shapes are there for the seats, instrument panel and radio.



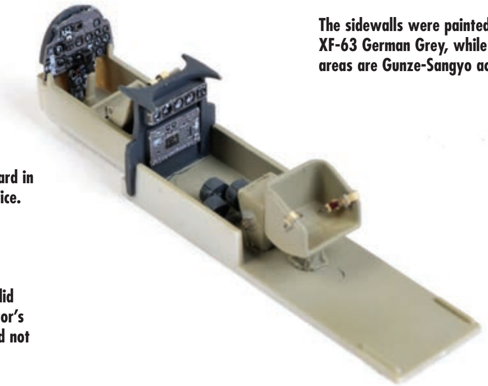
Extra detail was added to the upper fuselage sidewalls using plastic strip and sheet cut to shape. I was not too concerned about accuracy as little would be visible through the thick canopy.



Eduard's colour photo-etched detail set No.73-388 came to the rescue with a nice layered instrument panel, harness straps and more.

The sidewalls were painted with Tamiya XF-63 German Grey, while the RLM 02 areas are Gunze-Sangyo acrylic H70.

The colour photo-etch added to the kit's plastic parts. I did not realise at this stage but I had glued the radio operator's harness to the front face of the seat. Also note that I did not bother to deal with the ejector pin marks!



Airfix + Eduard in the front office.

The shape of the sometimes tricky spinners look pretty good and pitch collars are moulded to the propellers, but the blades appear to be too broad. Once again, the parts breakdown is a bit unusual with the backplate being moulded as an open ring. This looks fine when assembled though.

The radiator faces are separate parts that are fitted underneath the wings before the housings are glued into place. The faces are visible from front and rear.

The DF loop is very thick and will best be replaced with a couple of circles bent from copper wire. Other details are missing altogether, such as aileron mass balances, pitot tube and the distinctive clothes rail blind landing antenna under the fuselage.

The Airfix Bf 110 C-2/C-4 kit incudes a good selection of optional parts. Both the standard tail and longer boat tail extension are included, although only the short version is called out for this kit.

There is also a centreline ETC500 rack; two 500kg and two 250kg bombs; two 300 litre tanks complete with rather clever, one-piece mounts that should make assembly and alignment a breeze; two 900 litre tanks (with the same mounting system as the 300 litre tanks); and an auxiliary oil tank for the mid-fuselage.

Two crew figures are included, each with separate arms.

Parts breakdown is conventional, with locating pins and other devices that make this model perfectly appropriate for even less experienced modellers.

The canopy is supplied as a single part. It is thick and looks a little squat.

For those who would like to display their cockpit with an open canopy, I hope that we will see aftermarket vacform canopies available soon.

The other clear part is the landing light for the wing leading edge. This has been thoughtfully moulded onto a long plug that will locate deep inside the wing - nice approach.

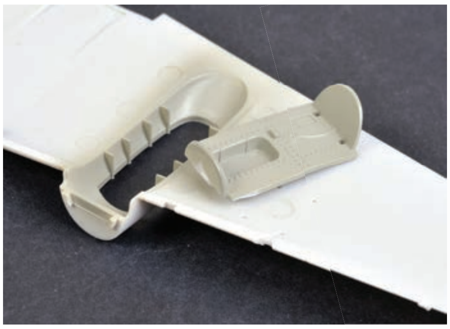
The overall dimensions of the kit look good but there are a number of noticeable problems. The top bulge of the engine nacelles are too sharply defined and extend too far back. In fact, they intrude onto the top of the flaps. The lower profile of the nacelles is not quite right either. The horizontal stabilisers are slightly small in area, and the top of the rear fuselage has a flat "deck", where it should actually feature a smooth and fairly sharp curve at the spine.

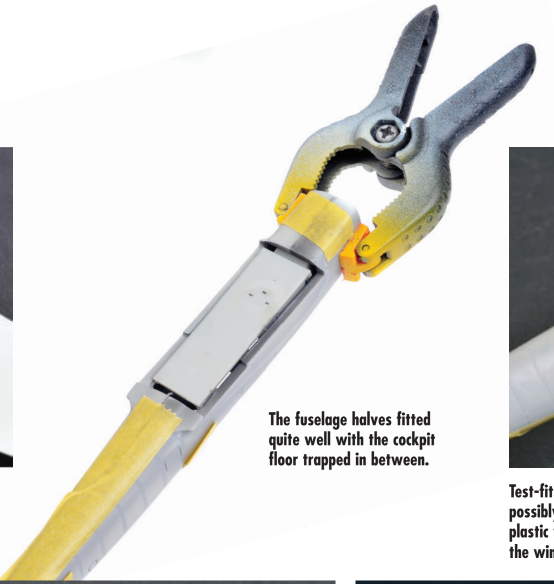
MARKINGS

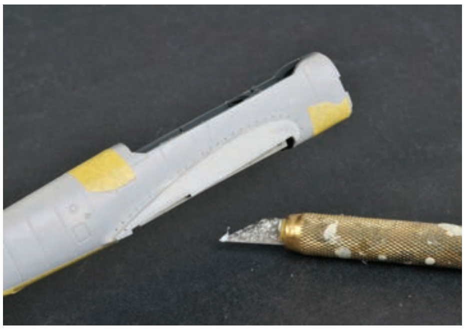
Two marking options are offered:

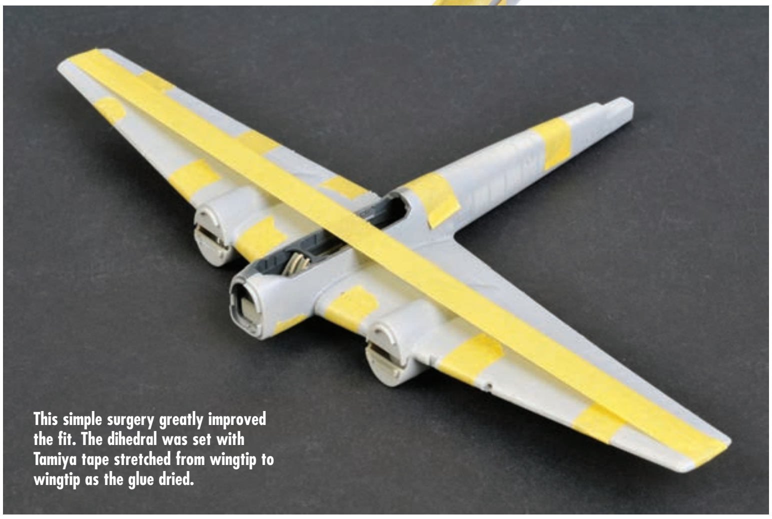
1. Messerschmitt Bf 110 C-2 - I/ZG 76, France 1940. This aircraft is finished in the eary-war colours of RLM 70 Black Green and RLM 71 Dark Green over RLM 65 Light Blue and features a striking shark's mouth.
2. Messerschmitt Bf 110 C-4/B - II/SKG 210, Russia 1941. This aircraft has the famous Wasp nose, and is finished in a winter whitewash over day camouflage. Most likely colours under the whitewash would be RLM 71 Dark Green and RLM 02 Grey.

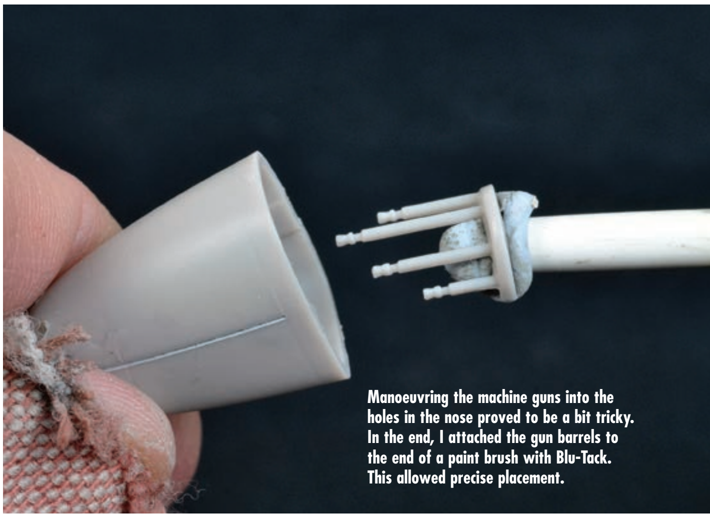
The decals are in register and show no sign of pixilation. I like the deep yellow interpretation of

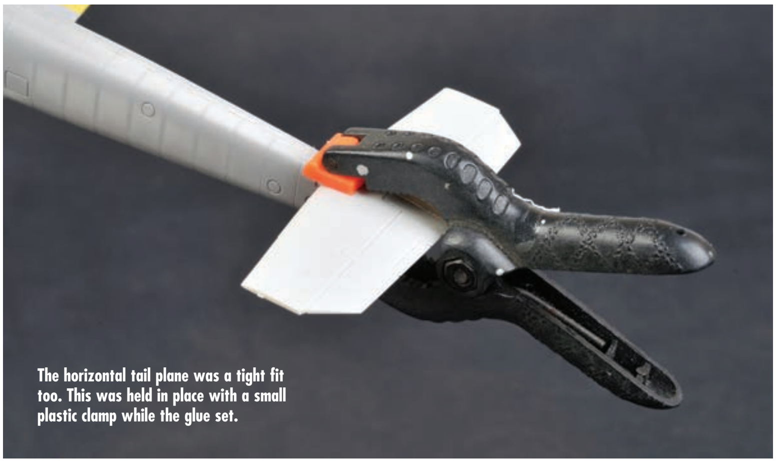

The wheel well detail is actually pretty good. The parts have been painted before they were glued together.


The fuselage halves fitted quite well with the cockpit floor trapped in between.

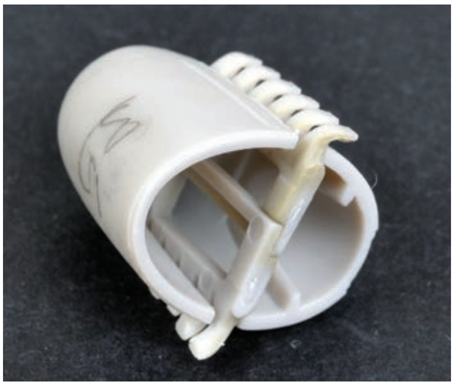

Test-fitting the wings suggested that the fit would be very tight, possibly effecting the dihedral (the wings would be too flat). Some plastic was scraped from the wing roots with a hobby knife to allow the wings a little extra room.

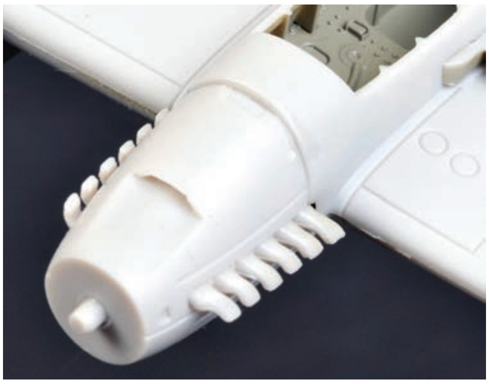

This simple surgery greatly improved the fit. The dihedral was set with Tamiya tape stretched from wingtip to wingtip as the glue dried.

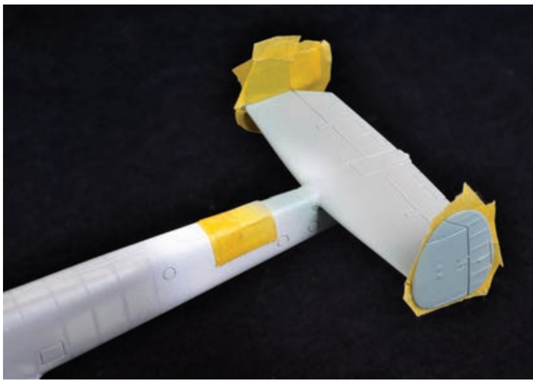

Manoeuvring the machine guns into the holes in the nose proved to be a bit tricky. In the end, I attached the gun barrels to the end of a paint brush with Blu-Tack. This allowed precise placement.

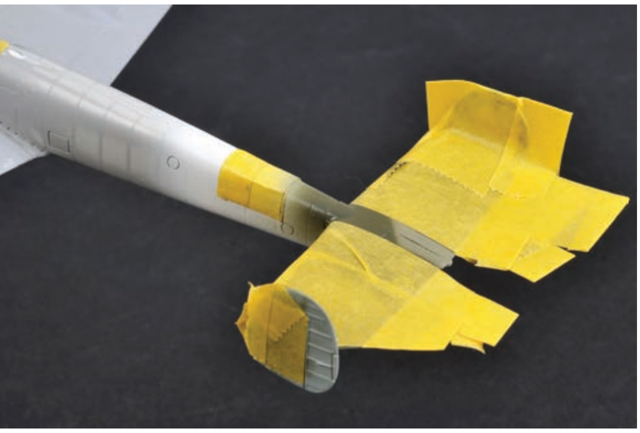

The horizontal tail plane was a tight fit too. This was held in place with a small plastic clamp while the glue set.

> ***"Eduard's accuracy, detail and surface features are clearly superior; although the low price of the Airfix kit will appeal to beginners and modellers on a tight budget."***

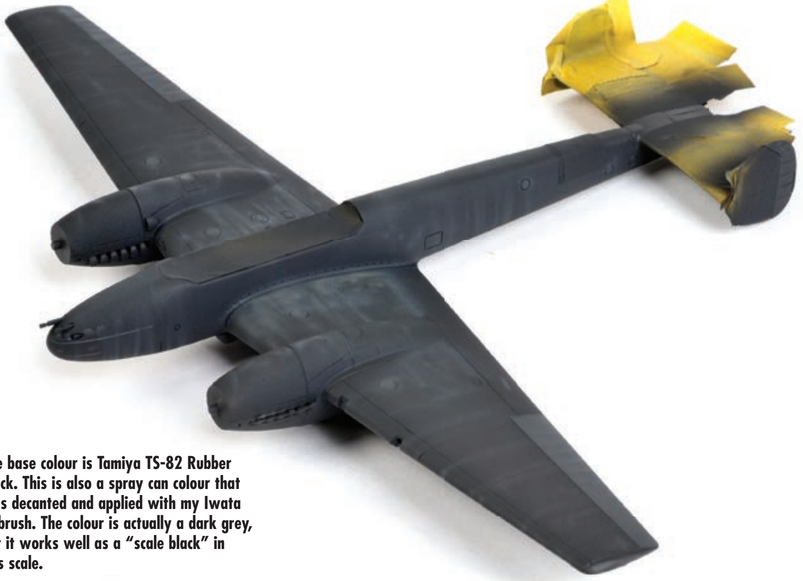

Engineering of the exhausts was peculiar. They had to be fitted before the one-piece engine nacelle was attached to the wing. The fit of the exhausts was sloppy too.


Airfix did not manage to capture the bottom profile of the engine nacelles. Note the large step between the nacelle parts, amongst other problems.

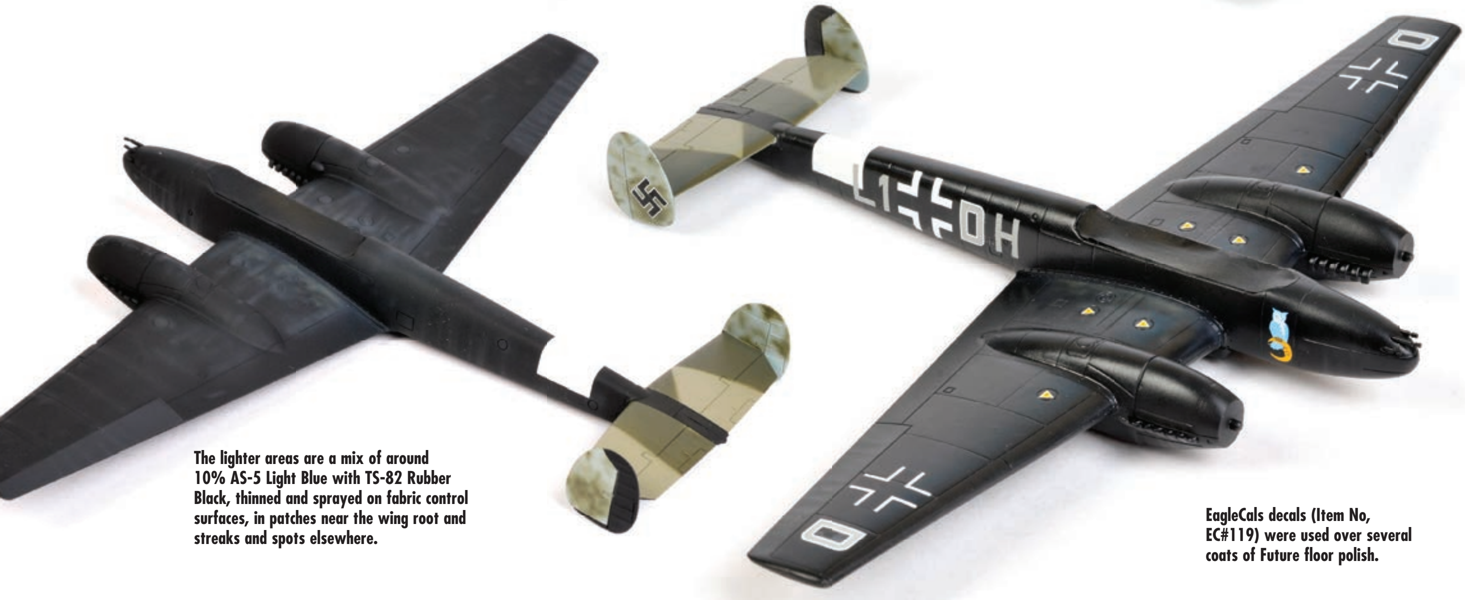

The rear fuselage was sprayed with several thin coats of Tamiya Fine White Primer and masked in preparation for the distinctive half-fuselage theatre band. The lower surfaces of the horizontal and entire vertical tail planes were painted light blue using Tamiya AS-5 spray paint, decanted and applied with an Iwata airbrush.



The upper tail planes were camouflaged in RLM 02 Grey and RLM 71 Dark Green. A mottle was also applied to the vertical tail planes. All but the port side rudder were masked off in preparation for the black coat.



The base colour is Tamiya TS-82 Rubber Black. This is also a spray can colour that was decanted and applied with my Iwata airbrush. The colour is actually a dark grey, but it works well as a "scale black" in this scale.



The lighter areas are a mix of around 10% AS-5 Light Blue with TS-82 Rubber Black, thinned and sprayed on fabric control surfaces, in patches near the wing root and streaks and spots elsewhere.

EagleCals decals (Item No, EC#119) were used over several coats of Future floor polish.

the RLM 04 colour.

The decals are flat in finish.

BUILDING THE AIRFIX KIT

Assembly of the Airfix 1:72 scale Messerschmitt Bf 110 C-2/C-4 is quite straightforward.

I decided to enhance the relatively bare cockpit with Eduard's colour photo-etched set, which offers a nice pre-printed sandwich for the instrument panel, plus radio face, harness straps, switch panel and much more.

I also added some plastic strip and sheet to the featureless cockpit sidewalls.

Test-fitting the wings suggested that the fuselage was slightly too wide and as a result the dihedral would be nearly flat. The solid wing root area on the side of the fuselage was scraped repeatedly with a hobby knife until enough material was removed to obtain the correct dihedral.

Apart from that, there were only a few tweaks. I replaced the very overscale DF loop with a piece of thin copper wire bent to shape around the handle of a paint brush. Initially, I used the base from the kit loop, but I dropped the whole assembly on the carpet and could not find it despite crawling around on my hands and knees for ten minutes. In the end, I carved another mount from some scrap sprue and bent another piece of wire, taking more care while I was gluing this time!

I reinforced the aerial mast with fine copper wire and painted in in a woodgrain finish. The lower section of the mast seem to have been made from wood on some German fighters, which may have been to ensure that it was non-conducting; or designed to break if a pilot struck the mast while bailing out.

I did not like the engineering of the exhausts. My two objections are that they have to be fitted before the engine nacelle is glued to the wing (making painting more difficult), and the fit is very loose.

The overall fit of the kit is pretty good but there is a large step at the join underneath and at the rear of the engine nacelles. This was eventually filled with Milliput White two-part epoxy putty then sanded smooth when set.

The kit canopy is quite thick and looks a little squashed to me. I hope that Falcon / Squadron eventually do a replacement vacform canopy. This would be a good investment, as the canopy is so prominent on this aircraft. It would also offer the opportunity to display the pilot's and gunner's positions open so that any added cockpit detail could be shown off.

On the plus side, I was impressed with the detail in the wheel wells and the positive fit of the landing gear.

HYBRID COLOURS

I have always been drawn to this particular camouflage scheme due to its hybrid nature. Most of the tail planes are painted in the day fighter scheme of RLM 02 Grey and RLM 71 Dark Green over RLM 65 Light Blue, while the port side rudder and remainder of the aircraft are black. The half-band of white on the rear fuselage and the owl emblem of NJG 3 are very interesting too.

The paint job kicked off with several thin coats of Tamiya Fine White Primer (a spray can colour) applied to the rear fuselage. The half-band was then masked using Tamiya tape.

Next, the day fighter camouflage was applied to the tail surfaces using Tamiya AS-5 Light Blue as RLM 65, with Gunze acrylics for RLM 02 Grey and RLM 71 Dark Green. The mottling was done with heavily thinned versions of these latter shades.

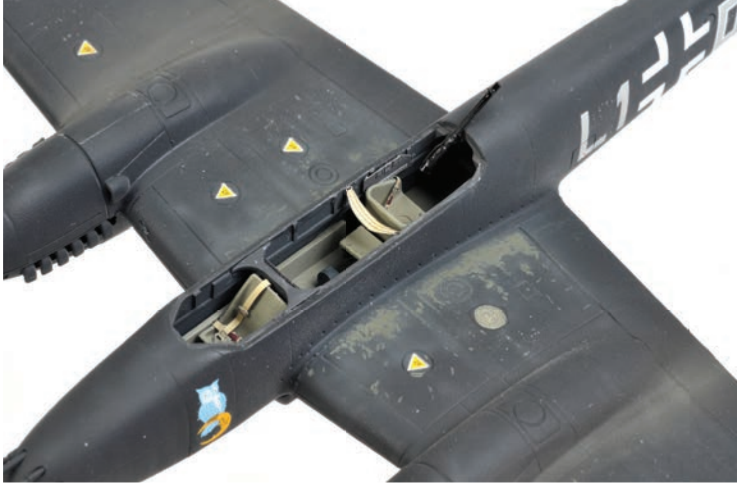
When these paints had dried, the tail surfaces were masked off with the exception of the port side rudder. Now the model was ready for the night camouflage.

BLACK IS BLACK… OR IS IT?

I actually tried something different for the night fighter camouflage finish this time.

I normally use the ubiquitous 50/50 mix of Tamiya XF-1 Flat Black and XF-64 Red Brown,

Testor's Flat Clear Lacquer delivered a suitably dull finish.



Heavy chipping at the wing roots was added using RLM 71 Dark Green, lightened slightly with RLM 02 Grey and built up gradually with the tip of a fine brush.

Eduard offers an after-market masking set for the Airfix Bf 110 canopy (Item No. CX288). This performed very well, saving lots of time.

Test fitting suggested that there might be some fine gaps at the front of the windscreen so the canopy was clamped firmly in place while the cement dried. The result some hours later was a gap-free join.

The kit's overscale DF loop was replaced with fine wire. The lower section of the antenna mast was painted in a woodgrain finish.

The Airfix canopy looks a little squashed to my eye, but the dark finish helps disguise this and a number of other sins.

Weathering on the tyres and the exhaust stacks was achieved with Tamiya's Weathering Pastels.

which works well as a scale black base colour. However, the Tamiya paints are a bit fragile as a base coat, and the very dark overall colour seems especially susceptible to damage through scratching and general handling.

I therefore looked for a colour in Tamiya's spray can lacquer range that might be a suitable substitute as a scale black base coat. In the end I decided on Tamiya TS-82 Rubber Black. This is a very dark, almost greenish grey. The pale shading colour is Rubber Back with a few spots of AS-5 Light Blue added to the paint cup.

The paints were all decanted from the spray cans and stored in glass jars so they could be applied by airbrush.

The paler colour was used on the fabric control surfaces of the ailerons (the paint on fabric faded faster than on metal surfaces) and in various patches (especially near the wing roots) and streaks.

In the end, I liked the way the colour turned out and the Tamiya lacquer paints are tough as nails.

I love the markings on this aircraft too, and EagleCals' decals worked fabulously over several coats of Future floor polish. The white-outlined grey aircraft letters are provided in two parts – the larger white "D" is applied first then the grey "D" as a separate decal.

This ensure that there are no registration problems. The letters on the upper and lower wing tips help break up the dark finish too. Make sure you wait a decent amount of time for the bottom white decal to fix itself to the surface before applying the grey D though. You don't want the white decal sliding around while you are trying to align the grey letter. I waited more than an hour, which seemed to be enough.

The only problem I encountered was that the lower wing crosses were much bigger than they should have been. I substituted the kit decals for these.

NIGHT FIGHTER WEATHERING

Convincing weathering can be a challenge on very dark night fighter camouflage, especially on a model as small as this one.

I decided against highlighting panel lines with black paint as I had gone to all the trouble of reducing their prominence with putty and sanding. They didn't look too bad against the dark base colour so I wasn't going to do anything to bring them to the fore again.

Instead, I created some variation on the large bare surfaces of the wings with chipping and exhaust stains. The earlier pale shade around the wing roots represented dirt and scuffing from boots. On top of this, I added tiny spots of RLM 71 Dark Green, lightened slightly with some RLM 02 Grey, and built up gradually until it looked as if the black top coat had worn away to reveal the day fighter camouflage beneath. I also added individual chips outboard of the wing roots and especially around filler ports.

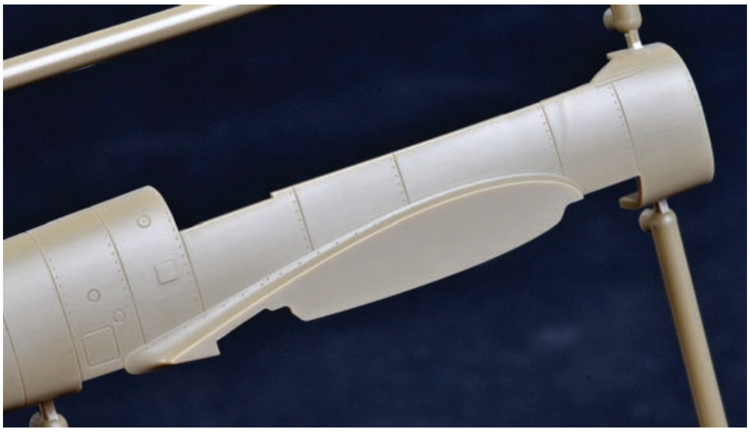
One of the fuel triangle decals dislodged during this process, so I painted the filler cap RLM 02 to represent a primed replacement.

The exhaust stains were sprayed lines of heavily thinned Tamiya XF-64 Red Brown, XF-1 Flat Black and a few spots of XF-57 Buff. The tyres and the exhaust pipes were weathered with Tamiya's Mud coloured Weathering Pastels.

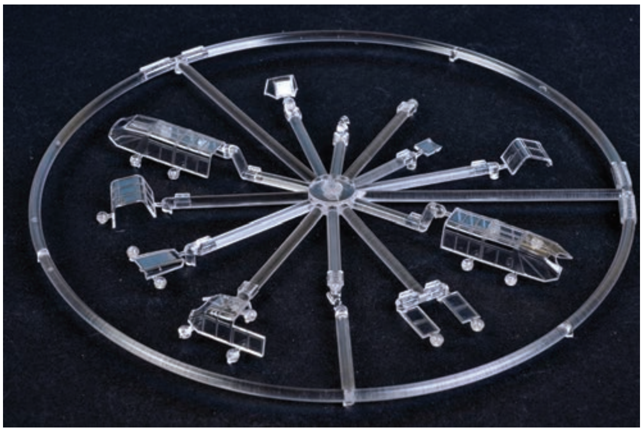
Bf 110E
ProfiPACK edition
1/72 scale
Bf 110E
ProfiPACK
7083
eduard
1/72 scale

Eduard's new 1:72 scale Messerschmitt Bf 110 E features striking box art.

> *"…there is no need to go beyond the contents of the Eduard box to obtain a highly detailed and accurate replica of the Messerschmitt Bf 110 E in 1:72 scale."*



Surface detail is restrained and crisp, with recessed panel lines and selected rows of rivets.



The clear parts are the crowning glory of the kit, being thin and free from distortion. Interestingly, canopy parts for the Bf 110 G are also on this circular sprue.

EDUARD'S 1:72 BF 110 E

EDUARD'S 1:72 SCALE MESSERSCHMITT BF 110 E IN THE BOX

Eduard released the first of their 1:48 scale Messerschmitt Bf 110 family back in September 2007. The kits are very well detailed and feature class-leading surface detail; with plenty of useful options and attractive decals. They also have a reputation of being tricky to build.

Eduard has clearly taken a good hard look at the engineering and parts breakdown of those 1:48 scale kits and made some changes when they were designing their 1:72 scale Messerschmitt Bf 110 E.

Eduard's 1:72 scale Messerschmitt Bf 110 E comprises more than 160 parts in olive coloured plastic and 13 in clear. Keep in mind though that the total parts count includes 45 parts not for use with this version, and a number of additional optional parts for the Bf 110 E too. A colour photo-etched fret provides instrument panels, harness straps and smaller details, while the usual Eduard mask is also supplied for the complex glasshouse canopy framing.

The olive coloured plastic parts are attached to seven sprues via fine connectors. Moulding quality is superb. I could not find a single sink mark or ejector pin in any area that will be visible on the finished model.

Crisply recessed panel lines are partnered with incredibly subtle rows of rivets. I like the treatment of the fabric control surfaces too, with delicately raised rib tape and no sagging in between.

The fuselage is broken down into the main halves with a separate nose (upper and lower halves) plus an insert for the deck immediately aft of the cockpit. A standard fuselage is supplied along with a separate longer fuselage with the boat tail moulded in place.

The cockpit is beautifully fitted out with a combination of fine plastic and colour photo etched parts.

Seven spare ammunition drums are provided for the underfloor MG FF cannon, although the instructions only indicate the location of four. The photos in this article shows where I fitted all seven.

The rear gunner's seat may be posed facing any way you like, while the navigator's seat may be glued up or stowed.

The nose is designed to be closed, with the four machine guns cleverly arranged over two levels to allow the barrels to poke through in a staggered pattern.

Ailerons are supplied as separate parts.

Wheel well detail is moulded to the bottom of the wing and the inside of the nacelle parts. If you want to add more detail, Eduard has released a photo-etched fret that supplies the individual ribs inside the wheels wells.

The main undercarriage legs are quite stout, with two locating pins to ensure correct positioning. Optional plastic and photo-etched oleo scissors are offered.

The main wheels are the correct style for the Bf 110 E, but a second set with smaller hubs is also included for the Bf 110 C and D. Similarly, both large and small tail wheels are offered, and top machine gun cowls both with (for the E) and without (for the C and D) the rectangular intake. In fact, all the parts required for a Bf 110 C. D or E, including options of 300 litre drop tanks, 900 litre fuel tanks, the small fuselage oil tank and even the huge Dackelbauch fuselage tank, are supplied on the sprues.

The shape of the spinners looks good, and the prominent pitch collars are moulded near the base of each propeller blade. These should be clearly visible when the propeller assembly is complete.

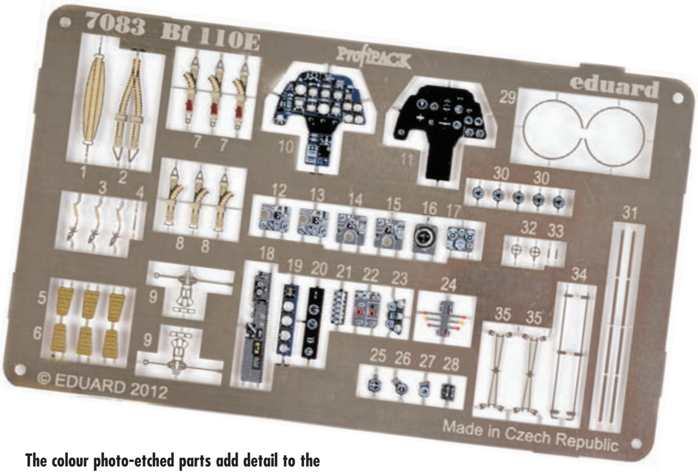
The exhausts are moulded as six-stack units, making assembly quite simple.

Clear parts are thin and well moulded. The side and top canopy parts are individual pieces to permit posing in the open position. The rear clamshell is moulded shut. Presumably, the challenges of moulding an open clamshell were too great in this scale due to the thickness of the plastic.

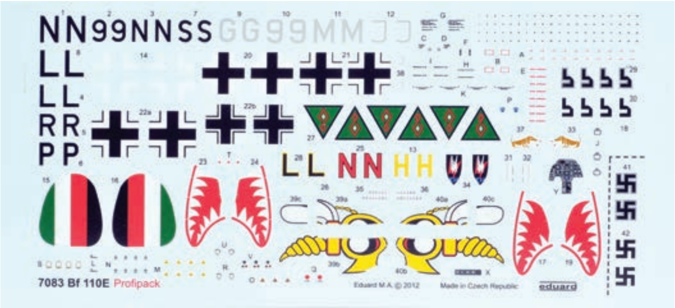
It is interesting to note that the Bf 110 F and G style canopies are also included on the clear sprue. These even offer the option of holes for the upward firing Schrage Musik cannon. Now that is something else to look forward to!

Eduard masks are also included to ease the pain of painting that maze of canopy frames.

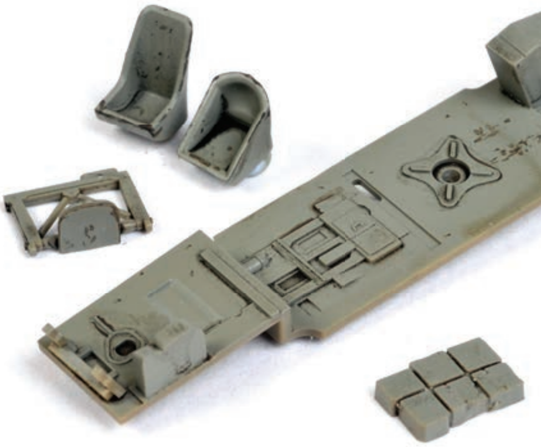
Markings for four colourful options are included.



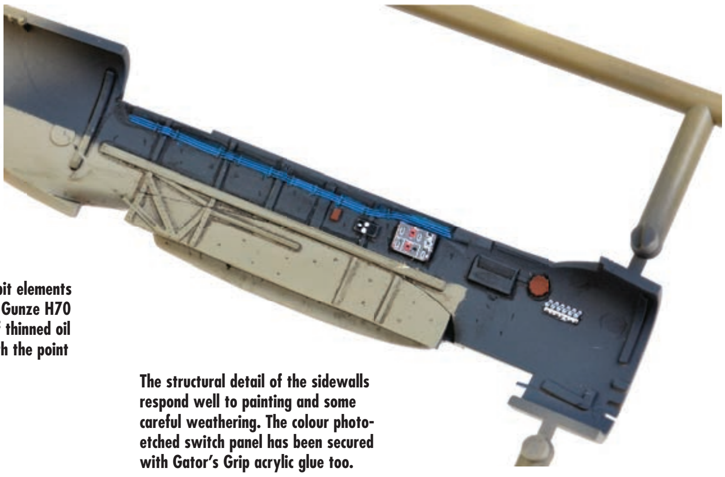
The colour photo-etched parts add detail to the cockpit and other areas of the kit.



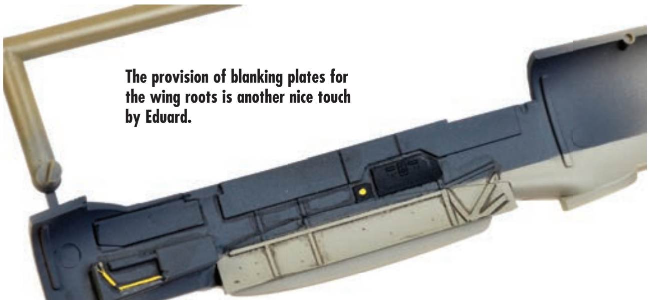
Markings are supplied for four attractive and varied options on the kit's Catrograf-printed sheet, although I sourced mine from Eduard's after-market decal set no. D72001.



Some of the plastic cockpit elements following a base coat of Gunze H70 RLM 02 Grey, a wash of thinned oil paint and "chipping" with the point of a fine paint brush.

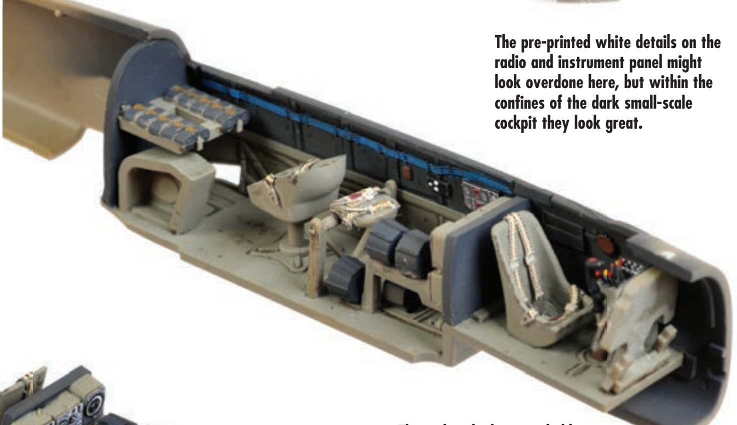


The structural detail of the sidewalls respond well to painting and some careful weathering. The colour photo-etched switch panel has been secured with Gator's Grip acrylic glue too.

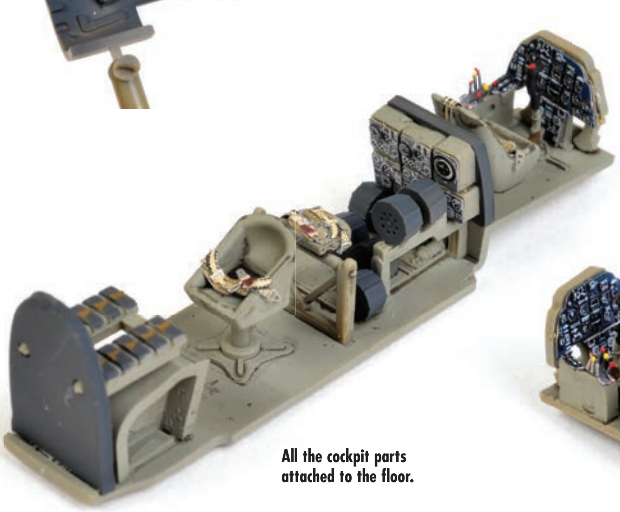


The provision of blanking plates for the wing roots is another nice touch by Eduard.

The pre-printed white details on the radio and instrument panel might look overdone here, but within the confines of the dark small-scale cockpit they look great.



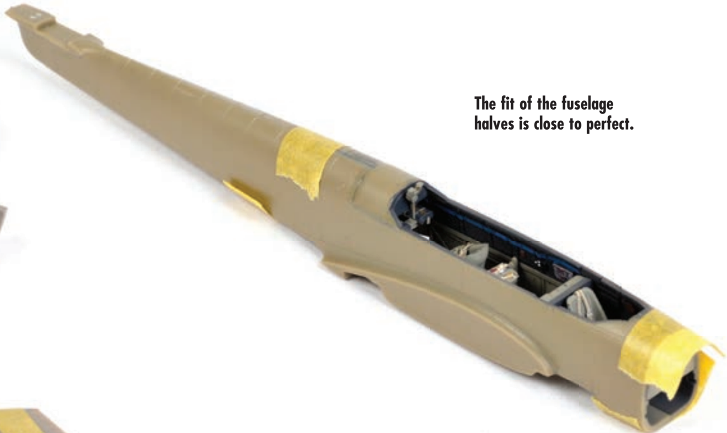
The cockpit looks remarkably busy and authentic, especially considering it is 1:72 scale.



All the cockpit parts attached to the floor.

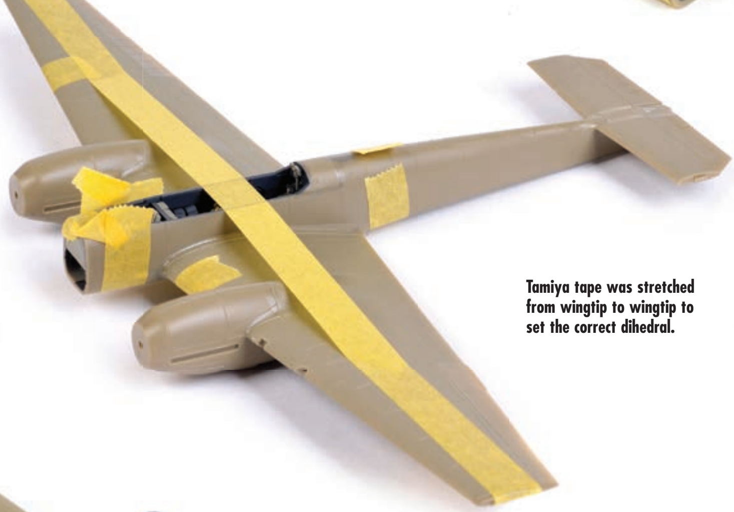
The instructions do not show the location of all seven spare ammunition drums, but all seven are supplied on the sprues.

The subtle shapes and details of the engine nacelles have been captured well by the kit.



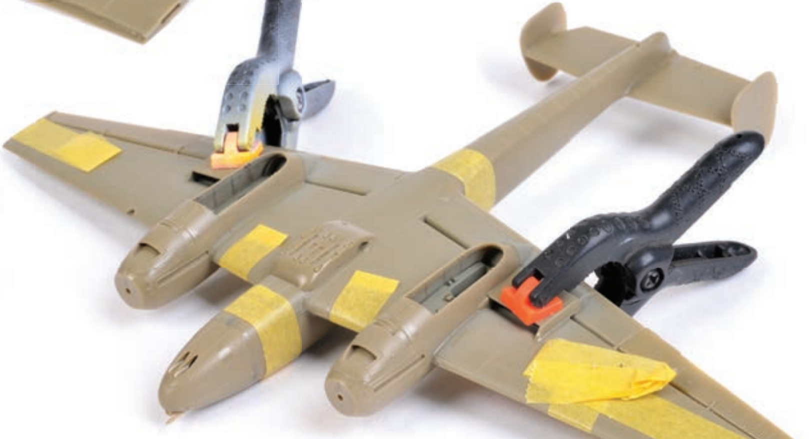
The fit of the fuselage halves is close to perfect.

The upper sections of the wheel wells were painted and weathered before the engine nacelles were glued in place.



Tamiya tape was stretched from wingtip to wingtip to set the correct dihedral.

The nose machine guns are cleverly arranged in two layers of two guns.



The tight-fitting radiator housings were glued and then clamped until the Tamiya Extra Thin Liquid Cement had thoroughly set.

The decals are well-printed and in register. Stencil markings are included on the single sheet.

I was pleased to see this 1:72 scale kit packed in a box with a separate lid. These are much sturdier and give better access to parts than a

For more photos of the contents in-box, you may visit the Preview page on HyperScale http://tinyurl.com/8qec8je

BUILDING THE EDUARD 1:72 BF 110 E

Unlike the Airfix kit, there is no need to go beyond the contents of the Eduard box to obtain a highly detailed and accurate replica of the Messerschmitt Bf 110 E in 1:72 scale.

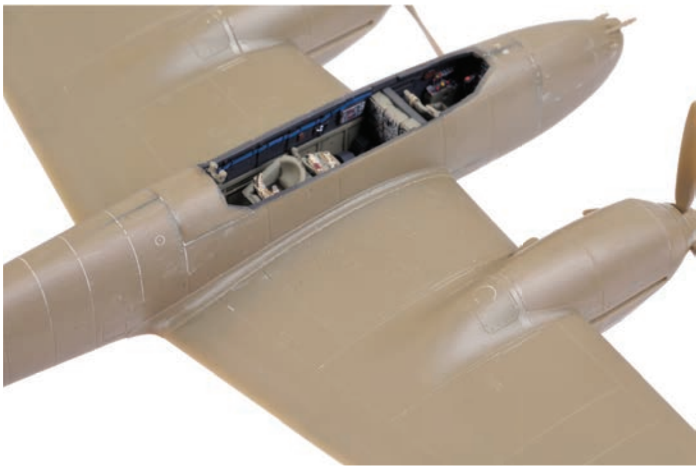
Eduard's 1:48 scale Bf 110s have a reputation of being tricky to build, but their 1:72 scale Bf 110 E was a dream. The fit was almost perfect throughout. This meant that I could simply focus on building the kit and maximising the existing detail with a careful paint job.

Inside the cockpit, the lower sections were painted RLM 02 and the upper areas in RLM 66 Black Grey. It seems that from 1940, a number of Luftwaffe fighters and bombers had the exposed elements of their cockpits repainted in the darker RLM 66 Black Grey in order to reduce reflectiveness and overall visibility.

The location of all seven spare ammunition drums was determined using reference photos and the 1:48 scale kit that I had built in 2007. The cockpit was otherwise built entirely according to the instructions. Weathering was by way of a thinned oil wash and chipping using dark brown paint and the point of a fine paint brush.

The entire cockpit, including the colour photo-etched parts, was sprayed with Testor's Flat Clear Lacquer before it was consigned between the fuselage halves.

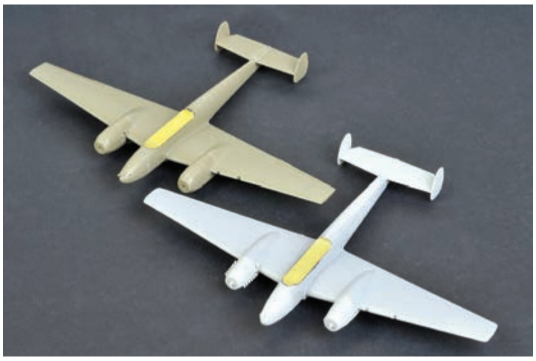
Construction of the airframe proceeded quickly. In fact, basic construction including the cockpit was completed in little more than a full day's work.



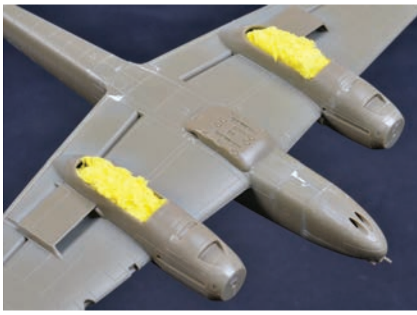
The fit of the kit is extraordinarily good. Check the joins at the traditionally difficult areas of the wing roots and the engine nacelles. Perfect!

The lower surface is very good too, although a few spots of Milliput and lines of Tamiya Surfacer were used here and there to level out some minor steps.

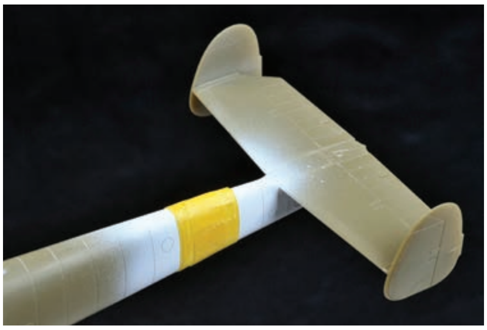
I could not resist using the after-market decal scheme that required the huge 900 litre external fuel tanks and the small auxiliary oil reservoir. These extra plastic parts are not mentioned in the assembly diagrams but are all included on the kit sprues.



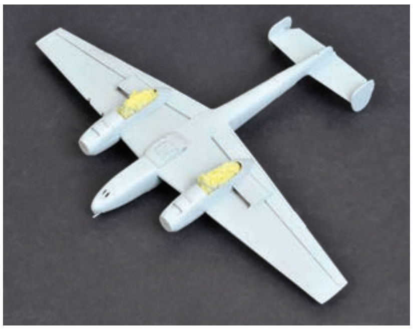
The Eduard and Airfix kits, both with their canopies masked off and ready for paint.



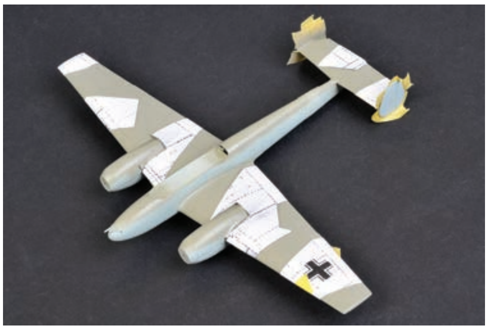
The landing gear bays were blanked off with small pieces of sponge, which conformed easily to the complex curves of the wheel well openings.



The first step of the paint job was to spray the rear fuselage with Tamiya Fine White Primer. The white theatre band was then masked off with Tamiya tape.



The lower surfaces, fuselage sides and vertical stabilisers were sprayed using Tamiya AS-5 Light Blue, decanted from the spray can and applied with my Iwata airbrush.



Paper masks were printed and cut out to obtain the distinctive camouflage pattern.

The only areas outside the instructions were the addition of the 900 litre fuel tanks and the auxiliary oil tank, and the beautiful Eduard resin main wheels. The tanks were on the sprues but not mentioned in the instructions so I took to the reference books again to check the location and angles of the long mounts for the 900 litre tanks.

The trailing antenna and the main antenna mast were both drilled and pinned to reinforce their delicate joins.

PAINTING DAY CAMOUFLAGE

Similar to the Airfix kit, the area of the fuselage theatre band was sprayed with Tamiya Fine White Primer and masked.

After the cockpit and wheel wells were masked, the model received a base coat of Tamiya AS-5 Light Blue (Luftwaffe). To my eye, this ambiguously labelled colour looks somewhere between RLM 65 Light Blue and RLM 76 Light Blue, but can suffice for either.

The advantage of this spray can paint is that it is a tough, fast drying lacquer. The disadvantage is, if sprayed straight from the can, the paint can deliver a slight orange peel finish. This problem can be avoided by decanting the paint from the can by spraying it into a small container. The light blue paint can then be poured into a paint cup for use in your regular airbrush.

The white fuselage band was masked and the upper surfaces received a coat of Gunze acrylic H70, RLM 02 Grey. Paper masks were then cut out and applied to the surface with small bobs of Bu-Tack. This was quickly followed by a disruptive pattern from Gunze H64 RLM 71 Dark Green.

Mottling commenced after the large blocks of colour had dried. I used a very thin mix of Gunze acrylic H70 RLM 02 Grey in sparse mottles, taking care not to overdo it. It is always easier to add more mottling later than to reduce it intensity. The RLM 71 was slightly lightened with RLM 02 and also heavily thinned before applying the second layer of mottling.

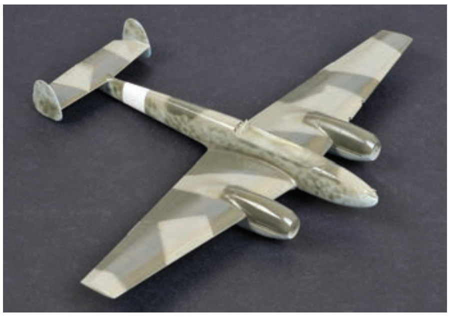
With the basic camouflage finished, two coats of Future Floor Polish were sprayed over the entire model. This tough topcoat serves the dual purposes of preventing damage to the soft Gunze paint, and providing a useful sheen for the application of decals.

The glasshouse canopy of the Messerschmitt Bf 110 would be a nightmare to paint – especially in this scale - if it were not for Eduard's die-cut, self adhesive masks. The masks, supplied with the kit, were fast to apply and conformed almost perfectly to the frames of the plastic canopy. The first paint coat was Tamiya XF-63 German Grey representing the interior frame colour, followed by Gunze acrylic RLM 71 Dark Green for the exterior.

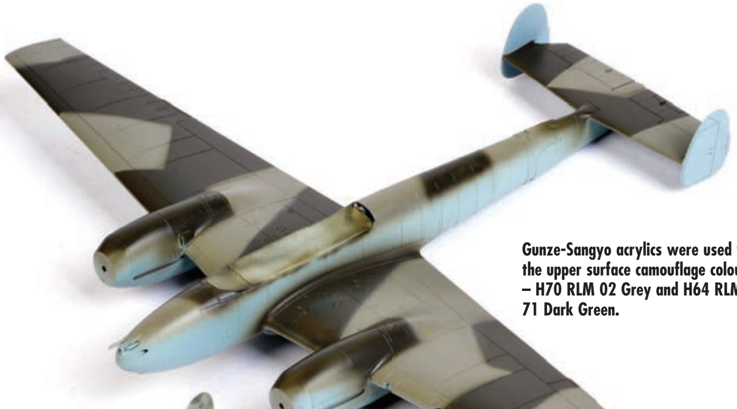
Weathering was applied sparingly. The panel lines received a subtle wash of heavily thinned Tamiya X-18 Semi-Gloss Black. The exhaust stain was sprayed using a mix of Tamiya XF-64 Red Brown and XF-1 Flat Black.

Head to Head – Night and Day

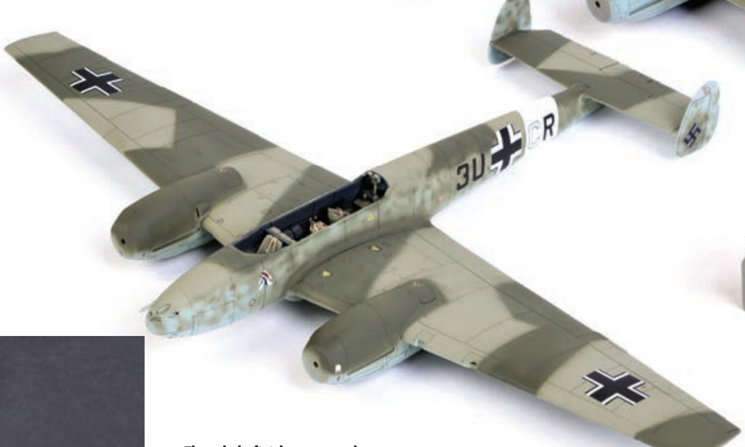
It is first worth mentioning that Airfix and Eduard are pursuing very different markets, with Airfix targetting the mass consumer (casual modellers, parents etc. shopping in toy stores and large department stores); and Eduard focusing very



The fuselage mottle was built up patiently, starting with a sparse application of RLM 02 followed by heavily thinned RLM 71 Dark Green.



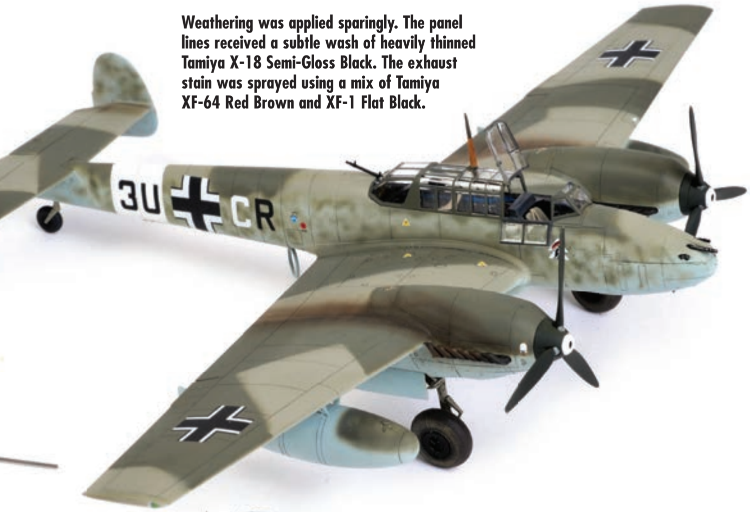
Gunze-Sangyo acrylics were used for the upper surface camouflage colours – H70 RLM 02 Grey and H64 RLM 71 Dark Green.



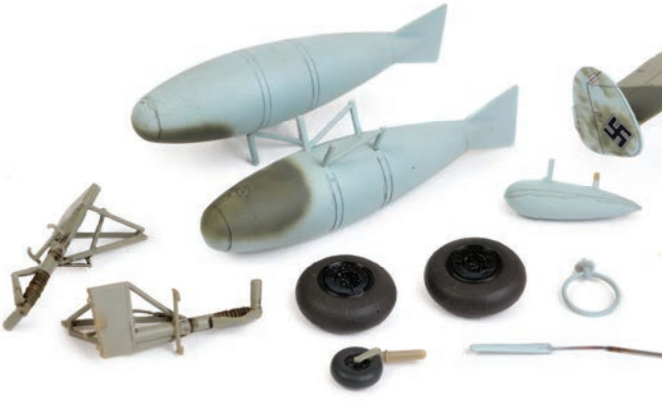
The whole finish was toned down and tied in with Testor's Flat Clear Lacquer.

Eduard offers a separately available set of resin replacement wheels. These are exquisitely detailed. I used these for my project.

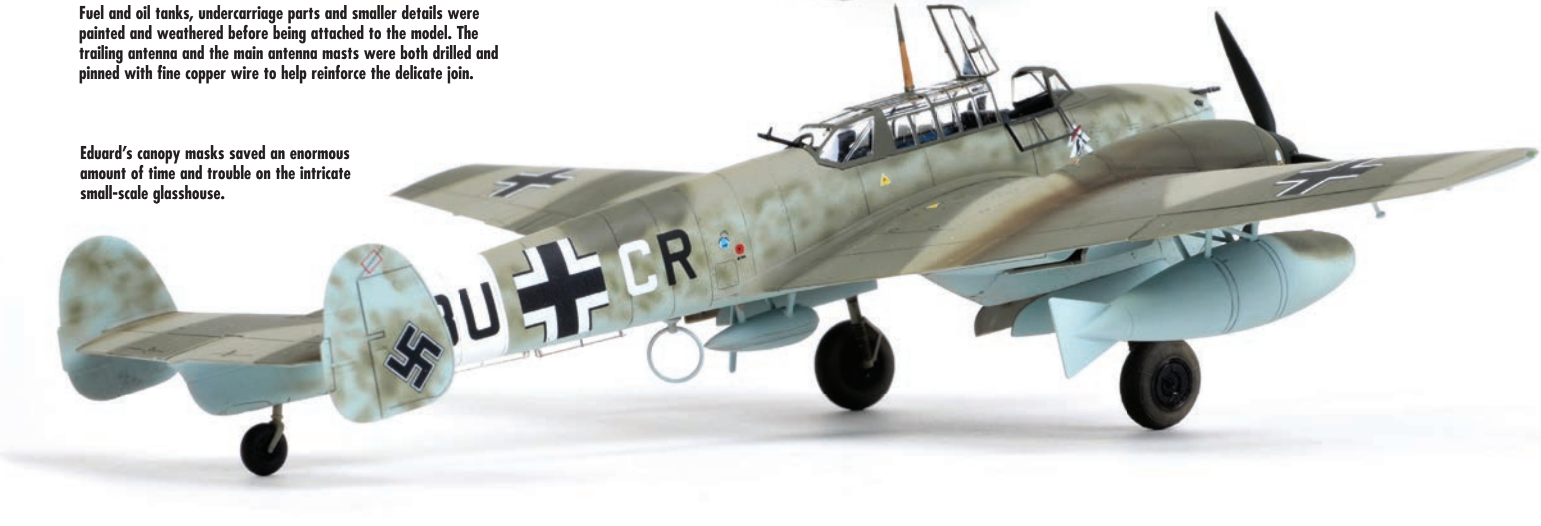
Markings were sourced from Eduard's separate decal sheet, D72001 "Bf 110 E". They performed perfectly over the several coats of Future floor polish.



Weathering was applied sparingly. The panel lines received a subtle wash of heavily thinned Tamiya X-18 Semi-Gloss Black. The exhaust stain was sprayed using a mix of Tamiya XF-64 Red Brown and XF-1 Flat Black.

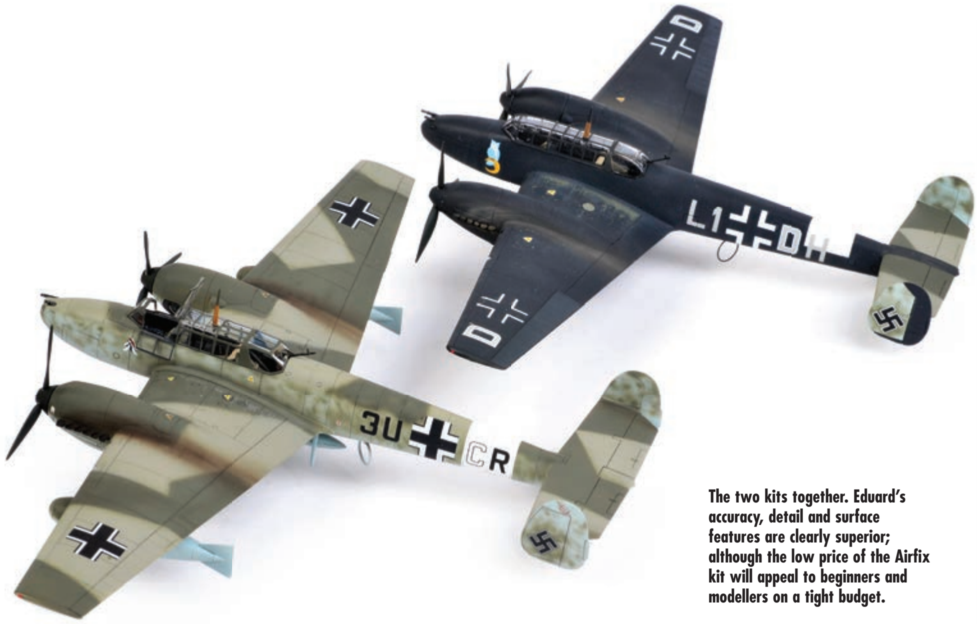


Fuel and oil tanks, undercarriage parts and smaller details were painted and weathered before being attached to the model. The trailing antenna and the main antenna masts were both drilled and pinned with fine copper wire to help reinforce the delicate join.



Eduard's canopy masks saved an enormous amount of time and trouble on the intricate small-scale glasshouse.

The white caps on the spinners were hand-painted with Vallejo acrylics and a fine brush using the kit panel lines as a guide.



The two kits together. Eduard's accuracy, detail and surface features are clearly superior; although the low price of the Airfix kit will appeal to beginners and modellers on a tight budget.

much on the more experienced modeller through their own website and specialist hobby outlets. To a degree, these target markets dictate each company's approach to kit design and pricing.

Putting all that aside though, let's compare the two kits starting with the Airfix Bf 110.

Although the overall dimensions and main shapes are quite good, accuracy of the Airfix 1:72 Bf 110 kits fall short in a number of key areas. These include the long and sharply defined engine nacelles that intrude onto the upper flaps, the lower nacelle profile, the wide propeller blades, the undersized vertical stabilisers / rudders and the flat "deck" on the upper rear fuselage.

Detail is also absent. Airfix has made no attempt to reproduce the gun sight, mass balances, the pitot tube nor the distinctive "clothes rail" blind landing antenna under the fuselage.

The deep, wide panel lines and the thick one-piece canopy have been frequently discussed since the kit's release, and a number of parts, including the DF loop, are grossly over scale.

It's not all bad news though. The kit is inexpensive and fit is very good overall. I liked the long stem moulded onto the landing light, and the cluster of machine guns in the nose is cleverly done. Lots of options are included in the box too, with bombs, drop tanks, separate boat tail and other parts that may be used to build a Bf 110 C, D or E.

When the Airfix new-tool Bf 110 was released in 2010, many of its shortcomings might have been viewed through the prism of 1:72 scale kits that had come before. I haven't seen the old Fujimi kit so I can't really compare the new Airfix kit with that one but it was certainly better than the original Airfix kit, as well as the Monogram and Revell offerings.

Eduard's new 1:72 scale Bf 110 E, however, occupies a whole different universe of detail. Some of those characteristic shapes that are wrong on the Airfix kit are correct on Eduard's too.

Another pleasant surprise is the straightforward engineering and excellent fit of the Eduard kit. The clear parts are also worth mentioning, which are very thin, sparklingly clear and offer the option of separate panels so the pilot's canopy may be posed open.

In summary, I'd say that the Airfix kit is still well suited to beginner modellers or those on a tight budget; but by all other criteria - detail, completeness, engineering, accuracy and fit - Eduard wins hands down. •

MODELSPEC

Eduard 1:72 Messerschmitt Bf 110 E. Kit No. 7083

Accessories Used :

Eduard Brassin Item No. 672 003 – Bf 110 E Wheels
Eduard Decals Item No. D72001 – Bf 110 E

Airfix 1:72 Messerschmitt Bf 110 C. Kit No. A03080

Accessories Used :

Eduard Zoom Item No. SS338 – Bf 110 C Interior S.A.
Eduard Mask Item No. CX288 – Bf 110 E
EagleCals EC#119 – Bf 110 C/D

Tools and Modelling Products Used (common to both):

Evergreen plastic strip and sheet
Copper wire
Tamiya Extra Thin Cement
Revell Contacta Cement
Selley's Super Glue
Tamiya Surfacer
Milliput White Epoxy Putty
Zip Kicker (super glue accelerator)
Tamiya Masking Tape
Irwin Clamps

Paints and Finishing Products Used (common to both):

Tamiya (acrylic): X-18 Semi-Gloss Black; XF-1 Flat Black; XF-2 Flat White; XF-3 Flat Yellow; XF-23 Light Blue; XF-64 Red Brown; XF-57 Buff.

Tamiya Spray Can – White Primer and AS-5 Light Blue Luftwaffe (used on both models). TS-82 Rubber Black (Airfix kit only)

Tamiya Weathering Master - Weathering Pastels Parts A.

Gunze-Sangyo acrylic paints: H64 RLM 71 Dark Green; H65 RLM 70 Black Green; H70 RLM 02 Grey.

Mr Hobby Mr Color Leveling Thinner 400.

Vallejo Model Color (acrylic): 919 Foundation White; 70953 Flat Yellow; 70957 Flat Red;

Vallejo Panzer Aces (acrylic): 312 Leather Belt

Testor's Model Master Flat Clear Lacquer Finish

Gunze Mr Metal Color (lacquer): 211 Chrome Silver

Solvaset decal setting solution

Future Floor Polish

Winsor & Newton Oil Paints: Lamp Black; Raw Umber

Eduard 1:72 Messerschmitt Bf 110 E. Kit No. 7083

⊕ Great detail; excellent fit; plenty of useful options; good selection of camouflage and marking options.

⊖ Nothing worth mentioning.

Rating: 9.5 out of 10

Thanks to Eduard for the sample www.eduard.com

Eduard kits are available in the UK from Creative Models Limited www.creativemodels.co.uk

Airfix 1:72 Messerschmitt Bf 110 C. Kit No. A03080

⊕ Good fit; inexpensive; lots of useful options; overall outlines quite accurate.

⊖ Deep and wide panel lines; thick one-piece canopy; poor lower nacelle profile; wide propeller blades; undersized vertical stabilisers / rudders; flat "deck" on the upper rear fuselage; various aerials and smaller fittings (including pitot and mass balances) absent.

Rating: 7 out of 10

Airfix kits are available from Hannants www.hannants.co.uk and hobby shops worldwide.

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ISSUE No.019 November 2012

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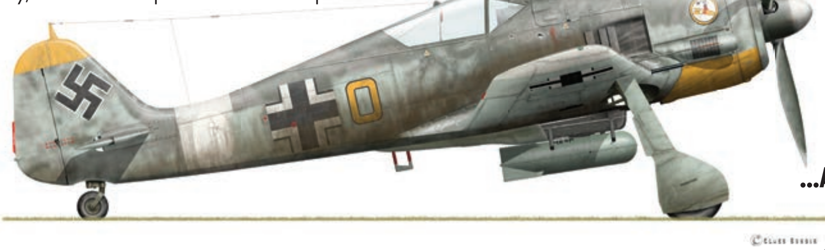

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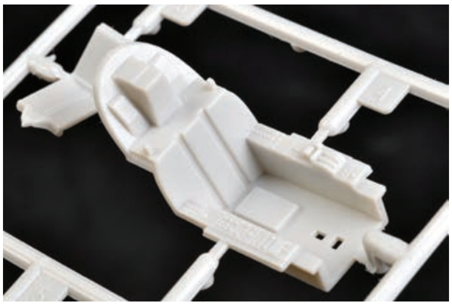
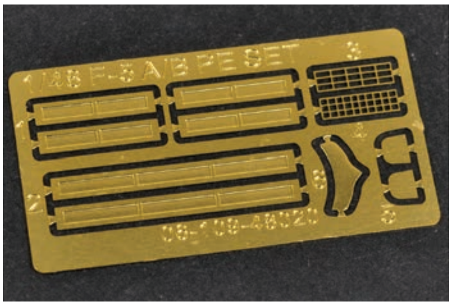
COLD WAR EXPORT

The Editor takes a look at Kinetic's newest model, their 1:48 scale F-5A/CF-5A/NF-5A Freedom Fighter

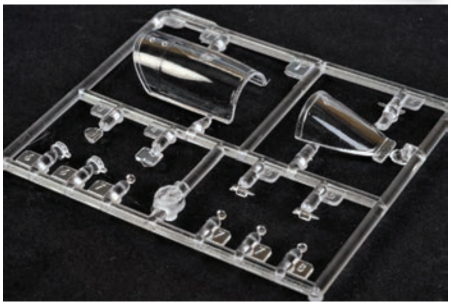
KINETIC Model Kits
F-5A
F-5A/CF-5A/NF-5A
FREEDOM FIGHTER
F-5A/ CF-5A/ NF-5A フリーダムファイター
1:48
Canadian Air Force / Hellenic Air Force / Royal Netherlands Air Force / Royal Norwegian Air Force
South Vietnamese Air Force / United States Air Force



The cockpit has console detail moulded in place.



The kit's photo-etched fret.



Canopy parts are thin and clear.

First flying in 1959 and entering service in the 1960s, the F-5 Freedom Fighter was designed as a lightweight, low-cost jet fighter and ground attack aircraft.

The F-5 Freedom Fighter was exported widely via the U.S. Military Assistance Programme (MAP) to countries including Iran, South Korea the Philippines, Turkey, Greece and Taiwan.

It was a fast and capable aircraft with a top speed of Mach 1.4, but was ideal for small air forces as it was cheap and easy to maintain.

Canada undertook local production of the Freedom Fighter as the CF-5A. In addition to local use, Canada sold the CF-5A to the Royal Netherlands Air Force.

Although AFV Club recently released a very well detailed F-5E, the story of the F-5A in 1/48 scale has not been so bright. Hawk offered a very basic kit dating from the 1960s (later reboxed by Testor); Fujimi had an undersized and underdetailed F-5A in the 1970s; and in 2004 Classic Airframes released an F-5A. Although this kit featured a beautifully detailed resin cockpit, it presented all the usual challenges of a limited-run kit and is long out of production.

Kinetic continues its commitment to Cold War US military aircraft with its latest 1/48 scale release, the F-5A Freedom Fighter. The kit comprises 159 parts in grey plastic; 12 parts in clear; 11 parts on one photo-etched fret and markings for a whopping 16 aircraft from six air forces.

Kinetic's aircraft models have been steadily improving since their first releases. Their 1/48 scale F-5A Freedom Fighter features crisp, consistent panel detail and selected rows of rivets. These are all very subtle and represent Kinetic's best efforts to date. The sprue attachment pints are also quite fine, so removal and cleanup of parts should not present any problems.

The kit fuselage is broken down into forward and rear sections, so more variants are obviously planned. In particular, some of the sprues are already marked F-5A/B, so expect to see a two-seater sometime in the future.

Cockpit detail is adequate, but no harness straps are supplied for the seat. However, it has been Kinetic's habit to release color photo-etched frets shortly after a kit's release. This will spruce up the front office for super-detailers, and will likely include harness straps, side consoles and a replacement instrument panel.

I like that the mount for the open canopy is moulded directly to the top of the ejector seat rails. This will ensure a positive and strong fit for the canopy. If you want to display the canopy closed, the instructions advise where to cut off these mounts.

Apart from the split fuselage halves, parts breakdown is conventional.

The flaps and leading edge slats are all provided separately and may be posed dropped if desired.

Plenty of option are offered including the refuelling probe, photo-etched slime lights and other unique attributes of the CF-5A, a boarding ladder, open or closed side fuselage vents, alternate bottom fuselage sections and more.

In addition to the slime lights, the small photo-etched fret supplies a couple of airframe detail parts.

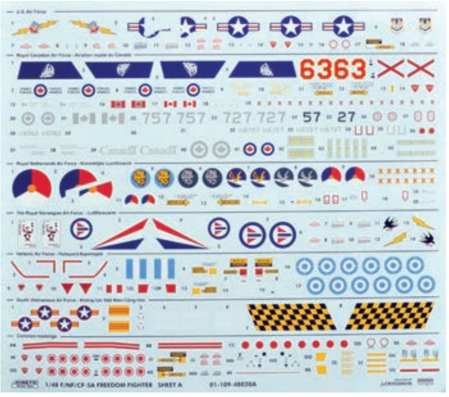
The characteristic Coke bottle wingtip tanks look good, and a useful selection of optional ordnance is supplied.

These include two styles of drop tank (four drop tanks in total), two rocket launchers, two AIM-9B missiles, two AIM-9J missiles and two MK82 iron bombs.

The canopy and windscreen are separate parts.

The clear parts are well moulded and quite thin. Markings are supplied for the following:

- Canadian Air Force
- Hellenic Air Force
- Royal Netherlands Air Force
- Royal Norwegian Air Force
- South Vietnamese Air Force
- United States Air Force



One of two big decal sheets covering eight nations.

16 different options are possible thanks to the inclusion of multiple serial numbers.

The decals are perfectly printed by Cartograf. Artwork was designed by Crossdelta.

Kinetic's new 1/48 scale F-5A Freedom Fighter looks to be an excellent model with their finest surface features to date. The wide selection of ordnance and useful options are welcome; while the marking options and decal sheets are nothing short of spectacular.

I will be sending this sample up to Mick Evans, so no doubt we will see the model built very soon!

Thanks to Lucky Model for the sample www.luckymodel.com •

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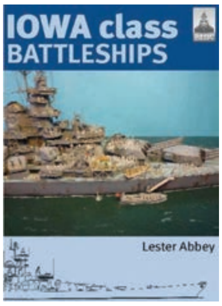

Iowa Class Battleships Shipcraft 17
The 'ShipCraft' series provides in-depth information about building and modifying model kits of famous warship types. Lavishly illustrated, each book takes the modeller through a brief history of the subject class, highlighting differences between sister-ships and changes in their appearance over their careers. This includes paint schemes and camouflage, featuring colour profiles and highly-detailed line drawings and scale plans.

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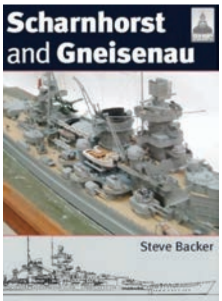

Scharnhorst and Gneisenau Shipcraft 20
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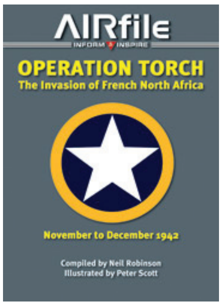

Operation Torch
Operation Torch was the codename of the first Anglo American amphibious operation of World War Two, launched against Vichy French controlled Morocco and Algeria, on November 1942. Inside this book you will find the colour schemes and markings of the aircraft, from both sides, involved in Operation 'Torch'. 72 pages, numerous colour profiles.

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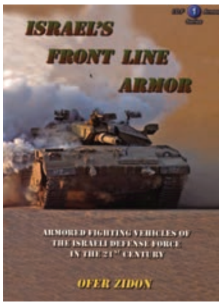

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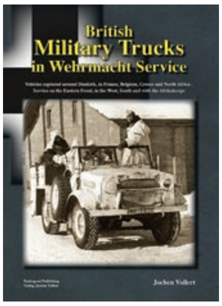

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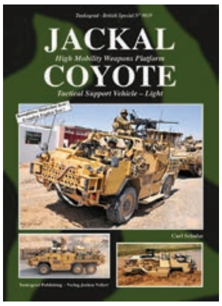

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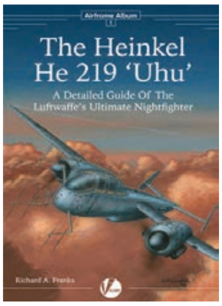

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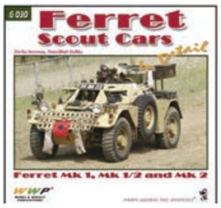

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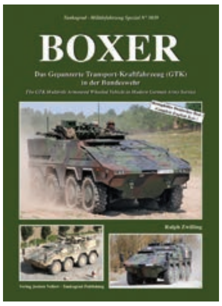

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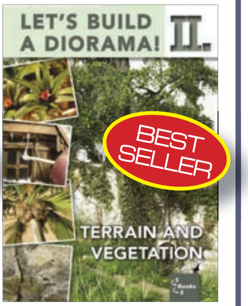

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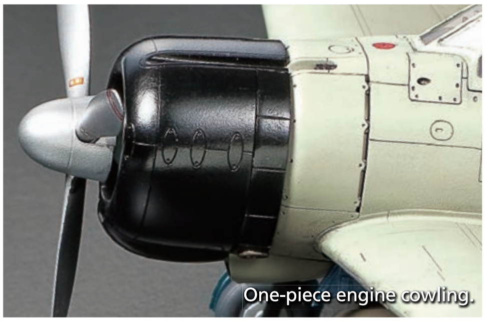
Add More Zeroes To Your Hobby Budget

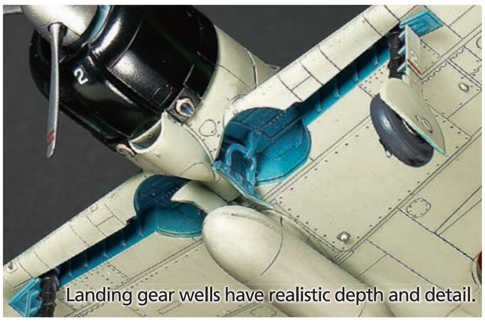
1/72 Scale Mitsubishi A6M2b Zero Fighter Item 60780

The Mitsubishi A6M Zero continues to be revered as one of the pinnacles of Japanese aviation. Following the previously released A6M5 (Item 60779), Tamiya has added the A6M2b, a variant which played an important role in the first years of the Pacific War, to the 1/72 Scale Warbird Series. Major components such as the fuselage, wing, and engine cowling have been newly designed in order to accurately reproduce the distinctive cowling shape and 12m wingspan of this earlier Zero variant. Tamiya's trademark precision engineering is also evident, as the kit not only provides an impressive level of detail but also a smooth assembly experience. Three marking options for aircraft which took part in the attack on Pearl Harbor are included.

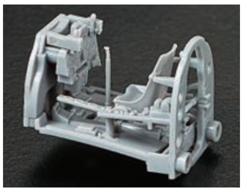
Length: 126mm
Wingspan: 167mm

1/72
SCALE


One-piece engine cowling.


Landing gear wells have realistic depth and detail.

Parts for both open and closed canopies included.



★The Sakae engine and cockpit interior feature exquisite details. ★Distinctive features of the A6M2b such as the engine gearbox and small-diameter propeller are accurately reproduced. ★New parts included to depict the radio and other A6M2b-specific cockpit equipment.

★Images show assembled and painted model kit.
★Product may vary from images shown.

Check Tamiya's homepage
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